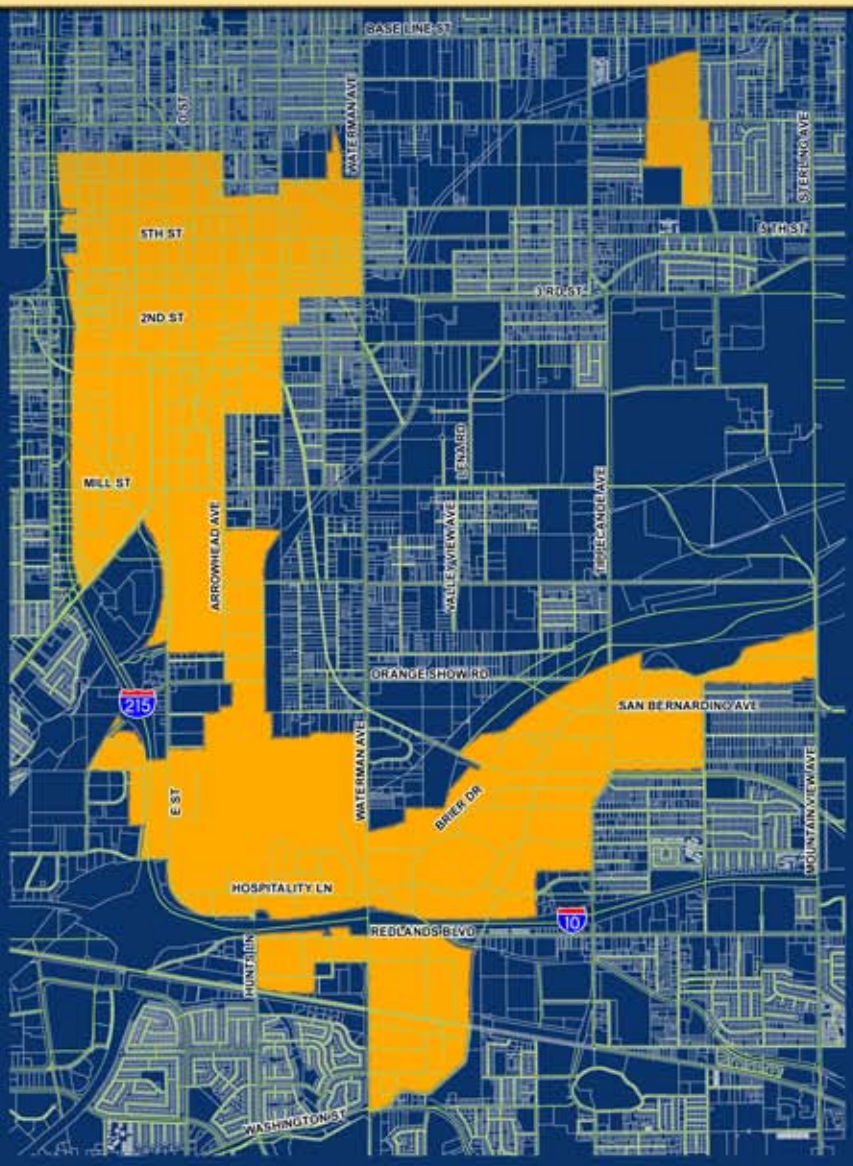
FINAL • CERTIFIED DECEMBER 20, 2010

San Bernardino Merged Area A Merger and Amendments

Environmental Impact Report

State Clearinghouse No. 2009111089



Prepared for:
City of San Bernardino Redevelopment Agency

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FINAL
PROGRAM ENVIRONMENTAL IMPACT REPORT

SAN BERNARDINO MERGED AREA A MERGER AND AMENDMENTS

SCH NO. 2009111089

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SECTION 1.0
EXECUTIVE SUMMARY

1.0 EXECUTIVE SUMMARY

1.1 PROJECT LOCATION

The proposed San Bernardino Merged Area A Merger & Amendments Project (proposed project) is generally located in the southeast portion of the City of San Bernardino east of Interstate 215 (I-215) from 8th Street to the Interstate 10 (I-10) interchange, and also along I-10 from the I-215 interchange to Mountain View Avenue. A portion of the Southeast Industrial Park Project Area is located west of the I-215 and the South Valle Project Area is located south of I-10. In addition, a portion of the Tri-City Project Area is located along Del Rosa Drive between Baseline and 6th Street (refer to *Exhibit 3-1*, *Regional Location Map*, and *Exhibit 3-2*, *Existing Project Areas*, in Section 3.0, Project Description).

Merged Area A encompasses the following Project Areas totaling 2,823 acres:

- Central City North
- Southeast Industrial Park
- Tri-City
- South Valle
- Merged Central City Projects (Meadowbrook/Central City, Central City East, Central City South)

1.2 PROJECT SUMMARY

1.2.1 PROJECT OVERVIEW

The proposed project is intended to accomplish the following:

- Merge and increase both the total amount of tax increment revenue the Agency may collect and the total amount of bonded indebtedness which can be outstanding at one time within Merged Area A;
- Update and expand the capital improvement projects list for Merged Area A;
- Extend by ten years the effectiveness of the Redevelopment Plans and the time to collect tax increment revenue from the Meadowbrook/Central City and Central City North Project Areas;
- Amend the existing Redevelopment Plans to merge the Meadowbrook/Central City, Central City North, Central City South, Central City East, Southeast Industrial Park, Tri-City, and South Valle Project Areas for financial reasons and as allowed by the California Community Redevelopment Law, Health and Safety Code Section 33000, et seq. ("Redevelopment Law");
- Adopt a single Merged, Amended, and Restated Redevelopment Plan for the proposed Merged Area A.

The Merged Plan has been prepared by the Agency pursuant to Redevelopment Law, the California Constitution, and all applicable laws and ordinances. It does not present a specific plan for the redevelopment, rehabilitation, and revitalization of any area within Merged Area A; instead, it establishes a process and framework for implementation.

MERGERS AND AMENDMENTS

In accordance with the *California Community Redevelopment Law* ("*CRL*") (*Health and Safety Code* Section 33000 et seq.), the Redevelopment Agency of the City of San Bernardino ("Agency") is proposing various redevelopment plan amendments and the merger of seven of the Agency's Project Areas ("Project Areas"). The seven Project Areas under consideration include Central City North, Southeast Industrial Park, Tri-City, South Valle, Meadowbrook/Central City, Central City East, and Central City South, collectively referred to as "Merged Area A" and individually referred to as "Project Area." As part of the Merger and Amendments, the Agency is proposing to adopt a single Merged, Amended, and Restated Redevelopment Plan for Merged Area A ("Merged Plan").

Amendment to Increase the Tax Increment and Bonded Debt Limitation

CRL Section 33354.6(a) sets forth that when a redevelopment agency proposes a redevelopment plan amendment to increase the limitation on the number of dollars to be allocated to the Project Area, or the amount of bonded debt that can be outstanding at any one time, the agency shall follow the same procedure, and the legislative body is subject to the same restrictions, as when adopting a new redevelopment plan.

Furthermore, *CRL* Section 33354.6(b) specifies that when an agency proposes such amendments, it shall describe and identify the following in the amendment documents: the remaining blight within the Project Area; the portions, if any, that are no longer blighted; the projects that are required to be completed to eradicate the remaining blight; and the relationship between the costs of those projects and the amount of increase in the limitation on the number of dollars to be allocated to the agency. "The ordinance adopting such an amendment must contain findings that both (1) significant blight remains within the Project Area and (2) the blight cannot be eliminated without the establishment of additional debt and the increase in the limitation on the number of dollars to be allocated to the redevelopment agency."

The Agency is proposing single cumulative limits for both the tax increment limitation and the bonded indebtedness limitation for Merged Area A.

Amendment to Add Public Improvement Projects to Merged Plan

Under *CRL* Section 33354.6, the legislative body may amend a redevelopment plan to add significant capital improvement projects as determined by the redevelopment agency. To add such capital improvement projects, an agency must follow the same procedures as adopting a new redevelopment plan. The Agency is both amending the capital project lists for the individual Project Areas into one merged list, as well as adding new capital projects for Merged Area A.

Amendment to Extend the Effectiveness and Term to Receive Tax Increment by 10 Years

The Agency wishes to pursue the extension of the effectiveness of the Central City North and Meadowbrook/Central City Project Areas. These Project Areas will reach their effectiveness time limit in the near future. Once the effectiveness limit is reached, implementation activities (except for inclusionary housing) within the Project Areas must cease and funds can only be spent on administering debt associated with the Project Areas. Therefore, the Agency wishes to pursue the 10-year amendment to extend the effectiveness and time period to receive tax increment for these two Project Areas. This amendment will further the Agency's ability to financially support needed redevelopment projects and programs in Merged Area A.

The City's existing Housing Element (adopted July 2003) is currently being updated. A draft of the updated Housing Element has been submitted to the Department of Housing and Community Development (HCD) for their mandatory review for compliance with State law. Following HCD review and any updates to the draft Housing Element, the City will hold public hearings to adopt the Housing Element.

As such, the 10-year amendments as previously identified for the Central City North and Meadowbrook/Central City Project Areas will not be undertaken at this time, but would be subject to a subsequent amendment after the Housing Element is adopted by the City and certified by HCD.

Pursuant to *CRL* Section 33333.10, the Mayor and Common Council must make findings that significant blight remains in the two Project Areas that cannot be eliminated without extending the effectiveness of the redevelopment plan and the time limit to receive tax increment. The 10-year amendment would require the Agency to follow the same procedure required to adopt a new redevelopment project, and adhere to the additional requirements prescribed by the *CRL* to complete this particular type of amendment. Significant blight does not have to be prevalent throughout the two Project Areas, though tax increment may only be spent in areas where blighting conditions are identified or where non-blighted parcels are deemed necessary and essential. This requirement for spending tax increment generated in the Project Area in this restricted manner commences only after the original effectiveness limit has expired.

An important outcome of the 10-year amendment is the requirement that, commencing the first fiscal year after the amendment is adopted, the Project Areas must deposit a total of 30% (a 10% increase) of the tax increment revenue received (from the Project Areas) into the Agency's Low and Moderate Income Housing Fund ("Housing Fund"). The requirement limiting where funds may be spent after the 10-year amendment does not include expenditures from the Housing Fund.

Additionally, the *CRL* contains a list of other requirements that must be met for the Agency to extend the effectiveness and tax increment time limitations for the Central City North and Meadowbrook/Central City Project Areas. The Mayor and Common Council must not only make the required findings of blight noted above, but prior to the Mayor and Common Council's consideration of the amendment ordinance, the Agency must adopt a resolution that makes the following findings:

- The community has an adopted housing element certified by the Department of Housing and Community Development;

- The Agency has not been in major violation of the State Controller's annual reporting for the past three fiscal years; and
- The Agency has written a request to and received a response from the State Department of Housing and Community Development stating that the Agency does not have an excess surplus in its Housing Fund.

Project Area Merger

CRL Section 33485 states that "Mergers of project areas are desirable as a matter of public policy if they result in substantial benefit to the public and if they contribute to the revitalization of blighted areas through the increased economic vitality of those areas and through increased and improved housing opportunities in or near such areas." Furthermore, *CRL* Section 33486 states that project areas may be merged, without regard to contiguity of the areas, by the amendment of each affected redevelopment plan as provided in *CRL* Section 33450. Before adopting the ordinance amending each affected redevelopment plan, the Mayor and Common Council must find, based on substantial evidence, that both of the following conditions exist:

1. Significant blight remains within one of the project areas being merged.
2. This blight cannot be eliminated without merging the project areas and the receipt of property taxes.

1.2.2 PROJECT AND PROGRAMS TO ELIMINATE BLIGHT

While the Agency has been effective in eliminating blight through public facilities and infrastructure improvements, site acquisition and clearance, and new construction and rehabilitation projects, significant blight remains prevalent throughout Merged Area A, as detailed in Section A of the *Preliminary Report*. The Agency will continue to carry out consistent projects and programs in Merged Area A, but seeks to augment its financial capacity to continue to implement a corridor-based approach to the elimination of blight. Rather than focusing on piecemealed projects within individual Project Areas, the Agency's focus is to address blighting conditions along key corridors in Merged Area A (e.g., Waterman Avenue, Baseline Street, Arrowhead Avenue, Hospitality Lane, Orange Show Road), and invest in the revitalization of the City's "Downtown Core." The Downtown Core is generally bound by 6th Street to the north, Waterman Avenue to the east, the I-215 Freeway to the west, and Rialto Avenue to the south. It encompasses the southern half of Central City North, almost all of Central City East and Meadowbrook/Central City, and a northern portion of Central City South. The projects and programs are summarized below and detailed in Section 3.6, Project Characteristics.

- Downtown Core Vision/Action Plan
- Projects and Programs
    - Public Facilities and Infrastructure Improvements
    - Environmental Conservation
    - Environmental Remediation and Brownfields Revitalization
    - Land Use Planning to Guide Redevelopment
    - Public Transit
    - Infill Development Projects and Affordable Housing
    - Economic Development Potential

1.2.3 PROJECT AREA DEVELOPMENT POTENTIAL

As part of the redevelopment process, it is anticipated that additional development will occur within this part of the City. Existing development within the Project Area includes commercial (hospitality, general and regional commercial, auto-oriented commercial, and service commercial uses), industrial (distribution, manufacturing, warehousing), school/civic/institutional, residential (single- and multi-family), and public facilities uses. In addition, a significant portion of the Project Area is undeveloped (approximately 460 acres), including vacant developable land and areas along the Santa Ana River reserved for flood control purposes. Of the approximately 460 acres identified as vacant, it is estimated that approximately 265 acres of land is considered developable due to lack of constraints (i.e., designated as open space, located within a 100-year floodplain, undevelopable due to a physical condition).

Redevelopment of these properties, excluding those areas that have development constraints, is anticipated to occur, which would increase demand for public services and utility connections/services within this part of the City. At this time, all development will remain consistent with the existing General Plan land use and Zoning designations within the Project Area. Therefore, the proposed project will be consistent with the City's General Plan goals and policies upon implementation. *Table 1-1*, *Redevelopment Potential Within Project Area*, identifies the amount of potential commercial, industrial, and residential development that could occur subsequent to the adoption of the proposed project. This development potential was calculated in two ways: 1) vacant land and 2) specific redevelopment projects.

Table 1-1
Redevelopment Potential Within Project Area

Development Potential	Commercial			Industrial	Residential	Notes
	Retail/ General	Office	Lodging			
Vacant Land Analysis						
Vacant Land Analysis[1]	2,309,894 SF	909,780 SF		518,916 SF	788 DU	
Identified Redevelopment Projects						
Carousel Mall Redevelopment Project	377,000 SF	800,000 SF	300,000 SF		750 DU	
Heritage Square	30,000 SF					
Redevelopment of Former Military Facilities at 3rd & Waterman	90,000 SF					
Seccombe Lake Village	50,000 SF				125 DU	
Arrowhead Credit Union Headquarters Campus	25,000 SF	190,000 SF				Accommodate 1,000+ employees (225 new)

Table 1-1 (continued)
Redevelopment Potential Within Project Area

Development Potential	Commercial			Industrial	Residential	Notes
	Retail/ General	Office	Lodging			
Theater District Implementation	25,000 SF					
Intermodal Station and Transit-Oriented Development	75,000 SF	500,000 SF			170 DU	
TOTAL	**2,981,894 SF**	**2,399,780 SF**	**300,000 SF**	**518,916 SF**	**1,833 DU**	

Notes:
1. Includes development potential for commercial retail and office uses along or near Hospitality Lane within the Tri-City and Southeast Industrial Park Project Areas.

SF = square feet; DU = dwelling unit

Vacant Land Analysis

Based on the vacant parcels identified in the *Preliminary Report* prepared by RSG (January 2010), RBF identified the vacant parcels that were considered undevelopable due to a physical (located within a floodplain) or regulatory (zoned for open space) constraint. Once all vacant developable parcels were identified, RBF confirmed the identified General Plan land use and zoning designations for these parcels with City Staff, which provided a basis to assess the development potential within each property. This analysis determined the following development potentials could be developed on the 265 acres of vacant land within the Project Area:

- Approximately 3.22 million square feet of commercial and office uses[1]
- Over 500,000 square feet of industrial uses
- 788 multi-family residential units

A detailed table identifying the development potential for each of the seven redevelopment areas within the Project Area is provided in Appendix G, Vacant Land Development Potential.

Identified Near-Term Redevelopment Projects

Based on current discussions with potential developers and property owners within the Project Area, preparation/recent adoption of plans/projects within the Project Area, and the Agency's goals/plans for eliminating blight and expanding jobs/housing opportunities throughout this part of the City, Economic Development Agency (EDA) staff has identified several redevelopment projects likely to develop within the foreseeable future. These projects are listed in *Table 3-5*, *Identified Near-Term Redevelopment Projects*, in Section 3.0. In addition to the redevelopment

[1] Includes development potential for commercial retail and office uses along or near Hospitality Lane within the Tri-City and Southeast Industrial Park Project Areas.

of the vacant parcels within the Project Area, the development potential of identified redevelopment projects within the Project Area is:

- 667,000 square feet of retail/general commercial use
- 1.49 million square feet of commercial office use
- 300,000 square feet of commercial lodging uses
- 355 multi-family residential units

As indicated in *Table 3-5*, some of the projects are associated with larger projects that are currently being designed, planned, and/ or constructed within the Project Area or vicinity.

In total, the redevelopment potential within the Project Area is:

- 5,681,674 square feet of commercial (retail, general, office, lodging) uses
- 518,916 square feet of industrial uses
- 1,833 multi-family residential units

1.3 PROJECT OBJECTIVES

Implementation of the proposed Merged, Amended, and Restated Redevelopment Plan for Merged Area A is intended to achieve the following goals:

- Eliminate and prevent the spread of conditions of blight, including but not limited to: underutilized properties and deteriorating buildings, incompatible and uneconomic land uses, deficient infrastructure and facilities, obsolete structures, parking deficiencies, and other economic deficiencies, in order to create a more favorable environment for commercial, industrial, office, residential, and recreational development.

- Encourage the cooperation and participation of residents, businesses, public agencies, and community organizations in the economic revitalization of Merged Area A.

- Promote the economic development of Merged Area A by providing an attractive, well-serviced, well protected environment for residents and visitors.

- Develop property within a coordinated land use pattern of residential, commercial, industrial, recreational, and public facilities in Merged Area A consistent with the goals, policies, objectives, standards, guidelines, and requirements, as set forth in the City's adopted General Plan and Zoning Code.

- Implement design and use standards to assure high aesthetic and environmental quality, and provide unity and integrity to development within Merged Area A.

- Eliminate environmental deficiencies and inadequate public improvements, including but not limited to inadequate street improvements and off-site parking, inadequate utility systems, and inadequate public services and facilities.

- Develop efficient and safe circulation improvements for vehicles and pedestrians.

- Implement beautification activities to improve the visual image of the City as well as reinforce existing assets and expand the potential of Merged Area A to encourage private investment.

- Encourage, promote, and assist in the development and expansion of local commerce and needed commercial and industrial facilities, including providing assistance to finance facilities or capital improvements on property used for industrial or manufacturing purposes to increase local employment and improve the economic climate within Merged Area A.

- Remove impediments to land disposition and development through improved infrastructure and public facilities, and the acquisition and assemblage of property into usable sites for commercial, industrial, recreational, and public facility development.

- Increase, improve, and preserve housing affordable to very low, low, and moderate income households, as well as promote homeownership, consistent with the goals and objectives of the community.

- Encourage the restoration and reuse of older, historic structures which add to the City's character and sense of community identity.

1.4 SUMMARY OF PROJECT ALTERNATIVES

1.4.1 ALTERNATIVES REJECTED FROM FURTHER CONSIDERATION

In accordance with *CEQA Guidelines* Section 15126.6, an EIR should identify any alternatives that were considered by the Lead Agency but were rejected as infeasible during the scoping process and briefly explain the Lead Agency's determination. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives; (ii) infeasibility; or (iii) inability to avoid significant environmental effects. The following are alternatives the Agency has rejected, and will not be analyzed further in this EIR.

Elimination of 10-Year Extension. This Alternative would involve the elimination of the 10-year extensions proposed for the Central City North and Meadowbrook/Central City Project Areas, while keeping all other components proposed. This Alternative was deemed infeasible due to the negative impacts that could occur to these two areas by reducing the amount of tax increment that can be collected and used to repay debt and fund blight eliminating programs and projects. For this reason, this Alternative was rejected as a feasible alternative for further consideration.

Elimination of Tax Increment Increase. This Alternative would eliminate the proposed increase in tax increment limits that can be collected within the Project Area, while keeping all other components as proposed. Currently, each Project Area has a separate limit on how much tax increment can be collected. As proposed, the project would increase the tax increment limit to

$2.5 billion for the entire area. This Alternative was deemed infeasible due to the negative impacts that could occur as a result of limiting the amount of tax increment within the Project Area. Under the current tax increment limits, the Agency would be limited on the amount of funding that it could collect. Currently, all of the tax increment limits for the Project Areas (except Tri-City) are based on 1.75 times the annual maximum debt service. In the case of the Tri-City area, the limit is fixed at $60 million. Without an increase and consolidation of the tax increment limits, the Agency would be required to track each Project Area and be limited by the limits currently in place. This could potentially hinder the amount of money that can be collected by the Agency and used to repay debt and fund blight eliminating programs/projects. For this reason, this Alternative was rejected as a feasible alternative for further consideration.

Eliminate Increase in Bonded Debt Limits**.** This Alternative would not include the bonded debt limit increase proposed by the project. Currently, the aggregate bonded debt limit for the Project Area is $237 million. Under the proposed project, this limit would be increased by $90 million to $327 million. Without this increase, the Agency would not be able to effectively leverage their funds and assets to accomplish the Project Area goals outlined above. For this reason, this Alternative was rejected as a feasible alternative for further consideration.

Alternative Financing**.** This Alternative would include the use of other funding sources besides tax increment financing and bonds to achieve the Project Area goals. These funding sources may include Federal funds through agencies like the Environmental Protection Agency (EPA), US Department of Housing and Urban Development (HUD), or Federal Highway Administration (FHWA), or State agencies such as California EPA, Caltrans, or California Department of Housing and Community Development (HCD). In addition, other funding sources may be obtained from the Southern California Association of Governments, non-profit groups, and/or other regional or local agencies that focus on redevelopment activities. Although these sources are available, they are not considered reliable; award of funds from many of these sources would involve a competitive award process, as the Agency would have to submit an application for funds along with all other agencies that apply. Since these sources are not guaranteed and most of the funds would be earmarked for specific purposes, it is envisioned that their use as alternative financing would not achieve the identified goals for the Project Area. For this reason, this Alternative was rejected as a feasible alternative for further consideration.

1.4.2 ALTERNATIVES ANALYZED

The analysis focuses on alternatives capable of eliminating significant adverse environmental effects or reducing them to less than significant levels, even if these alternatives would impede, to some degree, the attainment of the project objectives. The following alternatives have been identified:

- No Project Alternative. Under this Alternative, the proposed project would not be adopted or proceed. This Alternative serves as the “No Project” Alternative in accordance with *CEQA Guidelines* Section 15126.6(e).

- No Merger of the Redevelopment Project Areas Alternative. Under this Alternative, the Agency would undertake the actions of increasing tax increment and bonded debt limits, where feasible, and initiate 10-year extensions in the Central City North and Meadowbrook/Central City Project Areas; however, the seven Project Areas would not be merged into one Project Area.

1.4.3 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126.6 indicates that if the No Project Alternative is the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other alternatives.

The context of an environmentally superior alternative for this EIR is based on the consideration of several factors, including the proposed project's objectives, as described in Section 3.5, Project Goals, and earlier in this Section, and the alternative's ability to fulfill the goals with minimal impacts to the surrounding environment.

The No Project Alternative is not considered environmentally superior to the Proposed Project. Under this Alternative, no new actions would be taken by the Agency to eliminate blighted conditions and stimulate private investment in the Project Areas. Existing adverse environmental conditions, such as, but not limited to, deteriorated and dilapidated structures, brownfields and other contaminated or potentially contaminated sites, and non-conforming, both legal and illegal, properties that do not meet current development standards or health and safety standards in the uniform codes, in all likelihood would continue to remain in their existing state and will not be corrected or rehabilitated by private owners or investors without the economic development tools of redevelopment. Although some development activity could occur within the Project Areas, the extent of rehabilitation and development would be limited due to the lack of needed infrastructure and public improvements that would occur without the proposed project. Further, the No Project Alternative would reduce the Agency's ability to attain the goals established for the Project Area and would limit its ability to fully implement the goals and policies identified in the *General Plan* when compared to the proposed project.

Under the No Merger of the Redevelopment Project Areas Alternative, adequate funding of blight eliminating project/programs would not be available for the entire Project Area. It is anticipated that under this Alternative some of the individual Project Areas would be able to implement projects and programs to address blight; however, there would still be areas that would not due to funding limitations or current/expected shortfalls in revenues. Although some improvements may occur, the extent of the improvements would be limited and piecemeal. Additionally, this Alternative would not allow for a significant increase in the amount of tax increment that could be collected within the Project Areas, nor would it involve an increase in the limit of bonded debt, which would also affect the Agency's ability to achieve the project goals. Without the additional financing and funding mechanisms associated with the proposed project, the Project Area is anticipated to continue to experience both physical and economic blight. Therefore, the No Merger of the Redevelopment Project Areas Alternative would not be considered environmentally superior when compared to the proposed project. Further, this Alternative would affect the Agency's ability to attain the goals established for the Project Area and would limit its ability to fully implement the goals and policies of the *General Plan* when compared to the proposed project.

Conclusion

As discussed above, the primary goal of the proposed project is to promote and facilitate the revitalization, rehabilitation, and redevelopment of the Project Area, through the implementation of a comprehensive series of programs and projects that would eliminate blight, increase development/redevelopment in the area, and improve/expand needed infrastructure to support existing and future uses. Both Alternatives fall short of achieving the goals established for the Project Area and the goals and policies of the *General Plan*. As noted, impacts associated with the proposed project would be less than significant with the exception of construction- and operational-related air quality impacts and cumulative greenhouse gas emissions. However, the amount of development anticipated within the Project Area is based upon the land uses and buildout assumptions in the *General Plan*; therefore, impacts to air quality under the No Project Alternatives and No Merger of the Redevelopment Project Areas Alternative would be similar to the proposed project, and would not reduce or eliminate a significant impact associated with the proposed project.

1.5 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
LAND USE			
City of San Bernardino General Plan			
The proposed project could conflict with the City of San Bernardino General Plan.	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan are required.	Not Applicable.
City of San Bernardino Development Code			
The proposed project could conflict with the City of San Bernardino Development Code.	Less Than Significant Impact.	No mitigation measures are required.	Not Applicable.
Airport Influence Area			
Development associated with implementation of the proposed project could occur within the airport influence area as adopted by the San Bernardino International Airport Authority.	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan are required.	Not Applicable.
Cumulative Impacts			
Implementation of the proposed project combined with other related cumulative projects could result in cumulatively considerable land use and planning impacts.	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan are required.	Not Applicable.
POPULATION, EMPLOYMENT, AND HOUSING			
Population Growth			
Implementation of the proposed project could increase the residential population by 6,122 persons within the Project Area.	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan are required.	Not Applicable.
Employment Growth			
Implementation of the proposed project could result in the addition of 6,200,590 square feet	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan are required.	Not Applicable.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
of non-residential development and 16,601 jobs within the Project Area.			
Housing			
Implementation of the proposed project could result in the addition of 1,833 dwelling units within the Project Area.	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan are required.	Not Applicable.
Implementation of the proposed project could result in the removal of existing housing and displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere.	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan are required.	Not Applicable.
Cumulative Impacts			
Implementation of the proposed project could result in cumulatively considerable impacts related to housing, population, and employment growth.	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan are required.	Not Applicable.
AESTHETICS			
Short-Term Visual Character			
Grading and construction activities associated with development as a result of implementing the proposed project could temporarily degrade the existing visual character or quality of the development sites and their surroundings	Potentially Significant Impact.	AES-1 Construction materials and equipment staging areas shall be located away from residential or other sensitive uses and, when feasible, appropriate screening (i.e., temporary fencing with opaque material) shall be used to buffer views of the construction site. Staging locations shall be indicated on Final Development Plans and Grading Plans. AES-2 All construction-related lighting shall include shielding in order to direct lighting down and away from residential or other sensitive uses and consist of the minimal wattage necessary to provide safety at the construction site. A construction safety lighting plan shall be submitted to the City for review concurrent with Grading Permit application.	Less Than Significant Impact.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Long-Term Visual Character			
Development associated with implementation of the proposed project could degrade the existing visual character or quality of the development sites and their surroundings.	Potentially Significant Impact.	AES-3 Visual simulations depicting before (existing conditions) and after (with project conditions) representations of the proposed buildings and landscaping shall be required for future development projects, if deemed necessary by the City. The visual simulations are intended to convey an impression of the location, scale, and massing of the buildings to be constructed on a project site and to demonstrate the potential effects of the project. The viewpoint locations for visual simulation shall be determined by the Planning Division.	Less Than Significant Impact.
Light and Glare			
Implementation of the proposed project could create a new source of substantial light or glare which could adversely affect day or nighttime views in the area.	Potentially Significant Impact.	AES-4 Future development projects shall be designed with lighting installed in locations and orientations that minimize light spillover on adjacent residential or other sensitive uses. All onsite lighting shall utilize directional lighting techniques and low wattage bulbs that direct light downwards and minimize light spillover to adjacent residential or other sensitive uses, without compromising site safety or security. Lighting fixtures shall use shielding, if necessary, to prevent spill lighting on adjacent offsite uses.	Less Than Significant Impact.
Cumulative Impacts			
Implementation of the proposed project could result in cumulatively considerable impacts related to aesthetics, light and glare, and shade and shadow.	Potentially Significant Impact.	Refer to Mitigation Measures AES-1 through AES-4. No additional mitigation measures are required.	Less Than Significant Impact.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
TRAFFIC			
Implementation of the proposed project could generate trips that could impact levels of service for the existing area roadway system.	Potentially Significant Impact	Implementation of the circulation improvements identified in the General Plan Circulation Element and General Plan EIR are required to ensure that impacts to traffic generation within the Project Area are reduced. No additional mitigation measures are required.	Significant Unavoidable Impact.
Cumulative Impacts			
Implementation of the proposed project could result in cumulatively considerable trips that could impact levels of service for the existing area roadway system.	Potentially Significant Impact.	Implementation of the circulation improvements identified in the General Plan Circulation Element and General Plan EIR are required to ensure that impacts to traffic generation within the Project Area are reduced. No additional mitigation measures are required.	Significant Unavoidable Impact.
AIR QUALITY			
Short-Term Construction Emissions			
Implementation of the proposed project could facilitate the construction of new land uses that could generate dust and equipment emissions.	Potentially Significant Impact.	AQ-1 Prior to the issuance of grading permits, the property owner/developer shall include a note on all grading plans which requires the construction contractor to implement following measures during grading. These measures shall also be discussed at the pregrade conference. • Use low emission mobile construction equipment. • Maintain construction equipment engines by keeping them tuned. • Utilize existing power sources (i.e., power poles) when feasible. • Configure construction parking to minimize traffic interference.	Significant Unavoidable Impact.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• Minimize obstruction of through-traffic lanes. When feasible, construction should be planned so that lane closures on existing streets are kept to a minimum. • Schedule construction operations affecting traffic for off-peak hours to minimize traffic congestion. • Develop a traffic plan to minimize traffic flow interference from construction activities (the plan may include advance public notice of routing, use of public transportation and satellite parking areas with a shuttle service). (Source: General Plan EIR Mitigation Measure GP5.2-2A) AQ-2 The City shall promote the use of low or zero VOC content architectural coatings for construction and maintenance activities. (Source: General Plan EIR Mitigation Measure GP5.2-2B)	
Long-Term Mobile and Stationary Source Emissions			
Implementation of the proposed project could introduce future projects that could result in an overall increase in mobile and stationary source emissions within the City, and which may exceed South Coast Air Quality Management District air quality standards.	Potentially Significant Impact.	AQ-3 The City shall reduce vehicle emissions caused by traffic congestion by implementing transportation systems management techniques that include synchronized traffic signals and limiting on-street parking.	Significant Unavoidable Impact.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		(Source: General Plan EIR Mitigation Measure GP5.2-2C) AQ-4 The City shall consider the feasibility of diverting commercial truck traffic to off-peak periods to alleviate non-recurrent congestion as a means to improve roadway efficiency. (Source: General Plan EIR Mitigation Measure GP5.2-2D) AQ-5 The City shall promote the use of fuel efficient vehicles such as fuel hybrids when purchasing vehicles for the City's vehicle fleet. (Source: General Plan EIR Mitigation Measure GP5.2-2E)	
Carbon Monoxide Hotspots			
Implementation of the proposed project could facilitate development that could not result in an overall increase in carbon monoxide hotspot emissions within the City.	Less Than Significant Impact.	No mitigation measures are required.	Not Applicable.
Cumulative Impacts			
Air quality emissions resulting from development associated with implementation of the proposed project could impact regional air quality levels on a cumulatively considerable basis.	Potentially Significant Impact.	Refer to Mitigation Measures AQ-3 through AQ-5. No additional mitigation measures are required.	Significant and unavoidable impact for cumulative short-term emissions and cumulative long-term emissions, including global climate change.
NOISE			
Short-Term Construction Noise			
Future development and improvements associated with implementation of the proposed project could cause temporary construction related noise levels in excess of established standards.	Potentially Significant Impact.	NOI-1 The following measures shall be implemented when construction is to be conducted within 500 feet of any residential structures or has the potential to disrupt classroom activities or religious functions. • All construction equipment shall be equipped with mufflers and sound	Less Than Significant Impact.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		control devices (e.g., intake silencers and noise shrouds) no less effective than those provided on the original equipment and no equipment shall have an unmuffled exhaust. • The City shall require that the contractor maintain and tune-up all construction equipment to minimize noise emissions. • Stationary equipment shall be placed so as to maintain the greatest possible distance to the sensitive use structures. • All equipment servicing shall be performed so as to maintain the greatest possible distance to the sensitive use structures. • The construction contractor shall provide an on-site name and telephone number of a contact person. In the event that construction noise is intrusive to an educational process, the construction liaison will revise the construction schedule to preserve the learning environment. • Trucks shall utilize a route that is least disruptive to	

Impact	Level of Significance Before Mitigation	Mitigation Measures		Level of Significance After Mitigation
			sensitive receptors, preferably major roadways, during any necessary off-site import/export of fill material during construction.	
Groundbourne Vibration				
Construction-related activities resulting from implementation of the proposed project could generate or expose persons or structures to excessive groundborne vibration.	Potentially Significant Impact.	NOI-2	Project applicants shall require by contract specifications that construction staging areas along with the operation of earthmoving equipment within the City would be located as far away from vibration and noise sensitive sites as possible. Should construction activities take place within 25 feet of an occupied structure, a project specific vibration impact analysis shall be conducted. Contract specifications shall be included in the proposed project construction documents, which shall be reviewed by the City prior to issuance of a grading permit.	Less Than Significant Impact.
Long-Term Operational Impacts				
Future development associated with implementation of the proposed project could increase ambient noise levels from mobile and stationary sources in excess of the established standards.	Less Than Significant Impact.	NOI-3	Prior to the issuance of building permits for any project that involves a noise sensitive use within the 65 dBA CNEL contour along major roadways or freeway, railroads, or the San Bernardino International Airport, the project property owner/developers shall submit a final acoustical report prepared to the satisfaction of the Planning Director. The report shall show that the development will be sound-attenuated against present and projected noise levels,	Less Than Significant Impact.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		including roadway, aircraft, helicopter and railroad, to meet City interior and exterior noise standards. (Source: General Plan EIR Mitigation Measure GP 5.10-1)	
Airport Noise Impacts			
As the San Bernardino International Airport is located within the project vicinity, future development associated with implementation of the proposed project could expose people residing or working in the Project Area to excessive noise levels.	Potentially Significant Impact.	Refer to Mitigation Measure NOI-3. No additional mitigation measures are required.	Less Than Significant Impact.
Cumulative Impacts			
Cumulative short-term and operational noise as a result of implementation of the proposed project could result in cumulatively considerable impacts.	Potentially Significant Impact.	Refer to Mitigation Measures NOI-1 through NOI-3. No additional mitigation measures are required.	Less Than Significant.
BIOLOGICAL RESOURCES			
Implementation of the proposed project could effect species identified as a candidate, sensitive, or special status species.	Potentially Significant Impact.	BIO-1 A qualified biologist shall conduct a pre-construction nesting bird survey no more than three days prior to the commencement of ground-disturbing activities on the site. In the event breeding birds and their active nests are discovered on the project site during construction, impacts to nesting locations shall be minimized by the construction contractor pursuant to the California Fish and Game Code and the Federal Migratory Bird Treaty Act. Where an active bird nest is located by a qualified biologist, a 300-foot buffer (or 500-foot buffer for raptors and special-status bird species) shall be established around it until the qualified biologist deems the	Less Than Significant.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		nest inactive and there is no evidence of a second attempt to use the nest. The buffer area shall be delineated with orange construction fencing, and a qualified biologist shall verify the installation. Most birds breed between the months of February and September; therefore, if construction occurs outside of this time frame, there is a lower probability that breeding birds would be impacted by construction-related activities. BIO-2 A qualified biologist with a CDFG Scientific Collection permit and Memorandum of Understanding shall conduct a series of 30-day preconstruction surveys for the burrowing owl and San Bernardino kangaroo rat. The project applicant shall consult with the CDFG regarding measures for reducing or avoiding impacts to these species. The project applicant shall, if required by the CDFG, prepare a relocation plan, which shall be approved by the CDFG. If the aforementioned species are observed prior to construction, CDFG may require that the species be relocated by a qualified biologist to an approved site with suitable habitat present. Survey and relocation methods shall be approved by the CDFG prior to commencement of	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		grading. Future development shall comply with all applicable requirements of the CDFG. BIO-3 As applicable, future development shall be subject to the regulations set forth by regulatory agencies as part of the jurisdictional permitting process. The ACOE and CDFG shall require project applicants to explore alternatives to avoid or reduce impacts and shall also require mitigation for all unavoidable impacts. The ACOE has a "no net loss" policy that requires that any unavoidable impacts to stream values and functions be replaced. In addition, the RWQCB shall add restrictions to control runoff from the site, require on the site treatment of runoff to improve water quality, and impose Best Management Practices on the construction. All of the features of the project that shall address water quality issues shall be explained within the Water Quality Management Plan and Stormwater Pollution Prevention Plan.	
Implementation of the proposed project could have an adverse effect on riparian habitat or other sensitive natural communities.	Potentially Significant Impact.	Refer to Mitigation Measure BIO-3. No additional mitigation measures are required.	Less Than Significant Impact.
Implementation of the proposed project could have an adverse effect on federally protected wetlands as defined by section 404 of the Clean Water Act.	Potentially Significant Impact.	Refer to Mitigation Measure BIO-3. No additional mitigation measures are required.	Less Than Significant Impact.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Implementation of the proposed project could interfere with the movement of native resident or migratory fish, or with wildlife corridors.	Potentially Significant Impact.	Refer to Mitigation Measure BIO-3. No additional mitigation measures are required.	Less Than Significant Impact.
Cumulative Impacts			
Implementation of the proposed project could result in cumulatively considerable impacts related to biological resources.	Potentially Significant Impact.	Refer to Mitigation Measures BIO-1 through BIO-3. No additional mitigation measures are required.	Less Than Significant Impact.
CULTURAL RESOURCES			
Prehistoric Archaeological Sites			
Implementation of the proposed project could result in the destruction or alteration of prehistoric archaeological sites.	Potentially Significant Impact.	CR-1 Complete Archaeological Surveys of Undeveloped Properties. Prior to initiating any ground disturbing activities on undeveloped (not covered by buildings, pavement, or landscaping) properties, parcels, or city streets subject to redevelopment activities, an archaeological records search and a field survey using transects no more than 15 meters apart shall be completed. The results shall be provided to the City Redevelopment Agency in a technical report. CR-2 Complete Archaeological Test Program and Data Recovery. If a potentially eligible archaeological site is identified as a result of the survey, an archaeological test program shall be completed in order to provide information necessary to evaluate the site for eligibility for the CRHR. The results of the test program and the evaluation shall be provided to the City Redevelopment Agency in a technical report. If	Less Than Significant Impact.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		evaluated as eligible and the City determines that the site is eligible, an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, shall be completed for the portion of the site that will be impacted, unless project plans can be changed to avoid impacts to the site.	
Historic Archaeological Sites			
Implementation of the proposed project could result in the destruction or alteration of historic archaeological sites.	Potentially Significant Impact.	CR-3 Carry Out Historical Research And Records Search. Prior to initiating any ground disturbing activities on properties, parcels, or city streets subject to redevelopment activities in the Central City North, Central City East, Meadowbrook/Central City, and Central City South Project Areas, a records search shall be obtained from the San Bernardino Archaeological Information Center and property-specific historical research shall be conducted to determine the potential for subsurface historical archaeological material. The historical research shall include, but not be limited to, use of historical maps, Sanborn's Fire Insurance Maps, and County Assessor's records. The results shall be provided to the Redevelopment Agency of the City of San Bernardino in a technical report.	Less Than Significant Impact.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		CR-4 Complete Archaeological Test Program and Data Recovery. If the results of the archaeological research indicate that a potentially eligible historical archaeological site may be present subsurface, an archaeological test program shall be completed in order to provide information necessary to evaluate the site for eligibility for the CRHR. If evaluated as eligible and the City determines that the site is eligible, an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, shall be completed for the portion of the site that will be impacted, unless project plans can be changed to avoid impacts to the site. If an archaeological test program is not feasible because the property is covered by buildings and structures, archaeological monitoring shall be carried out during ground disturbing activities subsequent to building demolition.	
Historic Buildings and Structures			
Implementation of the proposed project could result in the destruction or alteration of historic buildings and structures.	Potentially Significant Impact.	CR-5 Identify Historical Buildings More than 50 Years Old. Prior to demolition or alteration of buildings or structures more than 50 years old in the Central City North, Central City East, Meadowbrook/Central City, Central City South, and South Valle Project	Less Than Significant Impact.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Areas, a building inventory shall be completed by an architectural historian to determine which buildings are more than 50 years old. The age of the buildings may be determined through historical research or by assessing architectural characteristics. Once this inventory has been completed, if a significant resource has been identified, the results of the survey shall be provided to the Agency and City Planning Division to be incorporated into the City's Historical Resources Reconnaissance Survey. CR-6 Evaluate Historical Buildings More than 50 Years Old. Properties that contain buildings or structures more than 50 years old subject to demolition or alteration shall be evaluated for CRHR eligibility by an architectural historian. The evaluation shall be conducted by means of property-specific historical research and assessment of architectural characteristics. The results of the evaluation shall be provided to the Agency and City Planning Division in a technical report and the results shall be incorporated into the City's Historical Resources Reconnaissance Survey. If evaluated as eligible and the City determines that the building or structure is eligible, mitigation	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		measures formulated by the architectural historian to reduce impacts shall be implemented. For buildings to be altered or remodeled, the Secretary of the Interior's Standards for Rehabilitation shall be employed in project design. For buildings and structures to be demolished, Historic American Building Survey/Historic American Engineering Record (HABS/HAER) standards shall be used in documenting the architectural or engineering characteristics of the building or structure.	
Subsurface Archaeological Sites			
Implementation of the proposed project could result in the destruction or alteration of unidentified subsurface archaelogical sites.	Potentially Significant Impact.	CR-7 Conduct Construction Monitoring. All ground-disturbing activities that result from redevelopment actions in the Project Area shall be monitored. Archaeological resources discovered during monitoring shall be evaluated to determine if they are eligible for the CRHR. Appropriate mitigation measures (data recovery or preservation) shall be developed and implemented for eligible resources that will be impacted.	Less Than Significant Impact.
Cumulative Impacts			
Implementation of the proposed project could result in cumulatively considerable impacts related to cultural resources.	Potentially Significant Impact.	Refer to Mitigation Measures CR-1 through CR-7. No additional mitigation measures are required.	Less Than Significant Impact.
GEOLOGY AND SEISMIC HAZARDS			
Earth Movement			
Implementation of the proposed project could involve earth movement (cut and/or fill).	Potentially Significant Impact.	GEO-1 Prior to issuance of a Grading Permit for each development project, a geotechnical engineer	Less Than Significant Impact.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		shall prepare an area-specific Geologic Report, which shall be submitted to the Community Development (Building and Safety) for approval. The Geologic Report shall specify the measures necessary to mitigate impacts related to liquefaction, expansion, and other geologic and seismic hazards, if any. All recommendations in the Geologic Report shall be implemented during area preparation, grading, and construction. GEO-2 Prior to issuance of any Grading Permit, applicants of development projects shall comply with each of the recommendations detailed in the Geotechnical Report, and other such measure(s) as the City deems necessary to adequately mitigate potential seismic and geotechnical hazards. GEO-3 All grading, landform modifications, and construction shall be in conformance with Title 15, Division 1 of the San Bernardino Municipal Code. Typical standard minimum guidelines regarding regulations to control excavations, grading, earthwork construction, including fills and embankments and provisions for approval of plans and inspection of grading construction are set from the latest version of the California	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Building Code. Compliance with these standards shall be evident on grading and structural plans. This measure will be monitored by the City Building and Safety Division through periodic site inspections.	
Seismic Groundshaking			
Implementation of the proposed project could expose people and structures to potentially substantial adverse effects involving strong seismic groundshaking or be located within an Alquist-Priolo earthquake fault zone.	Potentially Significant Impact.	Refer to Mitigation Measures GEO-1 and GEO-2. No additional mitigation measures are required.	Less Than Significant Impact.
Seismic-Related Ground Failure			
Implementation of the proposed project could expose people and structures to potential substantial adverse effects involving seismic-related ground failure (i.e., landslides, subsidence, and liquefaction).	Potentially Significant Impact.	Refer to Mitigation Measures GEO-1 and GEO-2. No additional mitigation measures are required.	Less Than Significant Impact.
Soil Erosion			
Implementation of the proposed project could result in impacts related to soil erosion or the loss of topsoil.	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan and existing regulatory requirements are required.	Not Applicable.
Expansive Soils			
Development associated with implementation of the proposed project could be located on expansive soils creating potential risk to life or property.	Potentially Significant Impact.	Refer to Mitigation Measures GEO-1 and GEO-2. No additional mitigation measures are required.	Less Than Significant Impact.
Cumulative Impacts			
Implementation of the proposed project could result in cumulatively considerable impacts related to geologic, soils, and seismic hazards.	Potentially Significant Impact.	Refer to Mitigation Measures GEO-1 and GEO-2. No additional mitigation measures are required.	Less Than Significant Impact.
HAZARDS AND HAZARDOUS MATERIALS			
Hazardous Materials Use, Generation, Emission, and Transport			
Development associated with Implementation of the proposed project could result in an increased risk of upset associated with the routine use, generation, and transport of hazardous materials or emit hazardous emissions or handle hazardous or acutely hazardous	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan are required.	Not Applicable.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
materials, substances, or waste, which may potentially pose a health or safety hazard.			
Accidental Release of Hazardous Materials			
Accidental release of hazardous materials could result in a risk to the public or environment.	Potentially Significant Impact.	HAZ-1 A formal Phase I Environmental Site Assessment (ESA) shall be prepared on a project-by-project basis in accordance with ASTM Standard 1527-05 or the Standards and Practices for All Appropriate Inquiry (AAI), prior to any land acquisition and/or construction activities. The Phase I ESA would identify specific Recognized Environmental Conditions (RECs), which may require further sampling/remedial activities by a qualified hazardous materials consultant with Phase II/Site Characterization experience prior to land acquisition, demolition, and/or construction. HAZ-2 Prior to demolition and/or rehabilitation activities, an asbestos survey shall be conducted by an Asbestos Hazard Emergency Response Act (AHERA) and Cal OSHA certified building inspector to determine the presence or absence of asbestos containing-materials (ACMs). If ACMs are located, abatement of asbestos shall be completed prior to any activities that would disturb ACMs or create an airborne asbestos hazard. Asbestos removal shall be	Less Than Significant Impact.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		performed by a State certified asbestos containment contractor in accordance with the South Coast Air Quality Management District (SCAQMD) Rule 1403. HAZ-3 If paint is separated from building materials (chemically or physically) during demolition of the structures, the paint waste shall be evaluated independently from the building material by a qualified environmental professional. If lead-based paint is found, abatement shall be completed by a qualified lead specialist prior to any activities that would create lead dust or fume hazard. Lead-based paint removal and disposal shall be performed in accordance with California Code of Regulation Title 8, Section 1532.1, which specifies exposure limits, exposure monitoring and respiratory protection, and mandates good worker practices by workers exposed to lead. Contractors performing lead-based paint removal shall provide evidence of abatement activities to the City Engineer. HAZ-4 If unknown wastes or suspect materials are discovered during construction by the contractor that are believed to involve	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		hazardous waste or materials, the contractor shall comply with the following: • Immediately cease work in the vicinity of the suspected contaminant, and remove workers and the public from the area; • Notify the City's Engineer; • Secure the area as directed by the Project Engineer; and • Notify the implementing agency's Hazardous Waste/Materials Coordinator. The Hazardous Waste/Materials Coordinator shall advise the responsible party of further actions that shall be taken, if required.	
Railroad Uses			
Development associated with implementation of the proposed project could result in an increased hazard to the public or the environment through the disturbance of existing and/or past railroad uses.	Potentially Significant Impact.	Refer to Mitigation Measure HAZ-1. No additional mitigation measures are required.	Less Than Significant Impact.
Landfills			
Development associated with implementation of the proposed project could result in an increased hazard to the public or the environment in association with landfills.	Potentially Significant Impact.	Refer to Mitigation Measure HAZ-1. No additional mitigation measures are required.	Less Than Significant Impact.
Airports			
Development associated with implementation of the proposed project could result in an increased hazard to the public or the environment in association with airport facilities.	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan are required.	Not Applicable.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impacts			
Development associated with implementation of the proposed project could result in cumulatively considerable hazards and hazardous materials impacts.	Potentially Significant Impact.	Refer to Mitigation Measures HAZ-1 through HAZ-4. No additional mitigation measures are required.	Less Than Significant Impact.
HYDROLOGY, DRAINAGE, AND WATER QUALITY			
Water Quality Standards			
Implementation of the proposed project could violate any water quality standards or waste discharge requirements.	Potentially Significant Impact.	HYD-1 Prior to the issuance of any grading or building permit, all qualifying land development/redevelopment projects, shall submit and have approved a Storm Water Quality Management Plan (SWQMP) to the City Engineer. The SWQMP shall identify all Best Management Practices (BMPs) that will be incorporated into the project to control storm water and non-storm water pollutants during and after construction and shall be revised as necessary during the life of the project. The SWQMP submittal applies to construction projects covered by the NPDES General Construction Permit as well as construction projects less than one acre in size. Also, a Stormwater Pollution Prevention Plan (SWPPP) shall be reviewed and approved by the City Engineer for water quality construction activities on-site. All recommendations in the Plan shall be implemented during post construction/operation phase. The project applicant shall comply with each of the recommendations	Less Than Significant Impact.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		detailed in the Plan, and other such measure(s) as the City deems necessary to mitigate potential water quality impacts. HYD-2 Any developer/owner engaging in construction activities which disturb one acre or more of land shall apply for coverage under the General Storm Water Permit for Construction Activity with the State Water Resources Control Board (SWRCB). Any developer/owner engaging in construction activities which disturb less than one acre, but are part of a larger common plan of development or sale that is greater than one acre, must also apply for coverage under the General Storm Water Permit for Construction Activity with the State Water Resources Control Board (SWRCB). "Construction activity" includes, but is not limited to: clearing, grading, demolition, excavation, construction of new structures, and reconstruction of existing facilities involving removal and replacement that results in soil disturbance. The owner of the land where the construction activity is occurring is responsible for obtaining coverage under the permit. Owners may obtain coverage under the General Permit by completing a "Notice of	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Intent" form (NOI) and mailing the form along with a vicinity map and the appropriate fee to the office of the California State Water Resources Control Board. The NOI form and checklist of items to submit to the state is available from the State Water Resources Control Board in Sacramento, California or from the City's Development Services Department. In addition, the owner shall also prepare a Storm Water Pollution Prevention Plan (SWPPP) in accordance with State requirements. Prior to obtaining any City-issued grading and/or construction permits the developer/owner shall provide evidence of compliance with the General Construction Permit by providing a copy of the Waste Discharger's Identification Number (WDID) to the City's Community Development Department.	
Erosion and Siltation			
Implementation of the proposed project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.	Potentially Significant Impact.	Refer to Mitigation Measures HYD-1 and HYD-2. No additional mitigation measures are required.	Less Than Significant Impact.
Polluted Runoff			
Implementation of the proposed project could create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial	Potentially Significant Impact.	Refer to Mitigation Measures HYD-1 and HYD-2. HYD-3 Prior to approval of project grading or construction plans, the	Less Than Significant Impact.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
additional sources of polluted runoff, such as from areas of material storage, vehicle or equipment maintenance (including washing or detailing), waste handling, hazardous materials handling or storage, delivery areas, loading docks, or other outdoor areas.		project owner/developer(s) shall be required to coordinate with the City's Public Works Department to determine requirements necessary to mitigate impacts to drainage improvements required to accommodate storage volumes and flood protection for existing and future runoff. Proposed projects shall implement mitigation measures, if required, to the satisfaction of the City Engineer and Public Works Department.	
Degradation of Water Quality			
Implementation of the proposed project could otherwise substantially degrade water quality.	Potentially Significant Impact.	Refer to Mitigation Measures HYD-1 through HYD-3, and Mitigation Measure HAZ-1. No additional mitigation measures are required.	Less Than Significant Impact.
Housing Within a 100-Year Flood Hazard			
Implementation of the proposed project could place housing within a 100-year flood hazard area as mapped on a federal flood hazard boundary or flood insurance rate map or other flood hazard delineation map (Panel No. 06071c7930f).	Potentially Significant Impact.	Refer to Mitigation Measure HYD-3. No additional mitigation measures are required.	Less Than Significant Impact.
Structures Within a 100-Year Flood Hazard			
Implementation of the proposed project could place within a 100-year flood hazard area structures which would impede or redirect flood flows.	Potentially Significant Impact.	Refer to Mitigation Measure HYD-3. No additional mitigation measures are required.	Less Than Significant Impact.
Failure of a Levee or Dam			
Implementation of the proposed project could expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan are required.	Not Applicable.
Cumulative Impacts			
Implementation of the proposed project could result in cumulatively considerable hydrology, drainage, and water quality impacts.	Potentially Significant Impact.	Refer to Mitigation Measures HYD-1 through HYD-3 and HAZ-1. No additional mitigation measures are required.	Less Than Significant Impact.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
FIRE PROTECTION			
Implementation of the proposed project could result in the need for additional fire protection services.	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan are required.	Not Applicable.
Cumulative Impacts			
Implementation of the proposed project could result in cumulatively considerable impacts to fire protection services.	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan are required.	Not Applicable.
POLICE PROTECTION			
Implementation of the proposed project could result in the need for additional police protection facilities and personnel.	Potentially Significant Impact.	PS-1 All development projects within the Project Area shall be evaluated and required to mitigate project-related impacts to police services. Individual development projects shall pay any fees required by a Developer Fee Program, if established, by the City of San Bernardino and/or the Police Department.	Less Than Significant Impact.
Cumulative Impacts			
Implementation of the proposed project could result in cumulatively considerable impacts to police protection facilities and personnel.	Potentially Significant Impact.	Refer to Mitigation Measure PS-1. No additional mitigation measures are required.	Less Than Significant Impact.
SCHOOL FACILITIES			
Implementation of the proposed project could result in the need for additional school facilities.	Potentially Significant Impact.	SCH-1 Prior to the issuance of certificate of occupancy, individual project applicants shall submit evidence to the City of San Bernardino that legally required school-related Development Fees have been paid per the current mitigation established by the applicable school district.	Less Than Significant Impact.
Cumulative Impacts			
Implementation of the proposed project could result in cumulatively considerable impacts to school facilities.	Potentially Significant Impact.	Refer to Mitigation Measure SCH-1. No additional mitigation measures are required.	Less Than Significant Impact.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
PARKS AND RECREATIONAL FACILITIES			
Implementation of the proposed project could result in significant impacts to the adequate availability of parkland and recreational facilities within the City of San Bernardino.	Potentially Significant Impact.	PR-1 Prior to the issuance of a grading permit, the Parks, Recreation & Community Services Department shall review development site plans to ensure that development does not disrupt operations at parks and recreational facilities in the Project Area, or access to pedestrian sidewalks or public transportation routes. Any recommendations by the Parks, Recreation & Community Services Department shall be implemented during site preparation, grading, construction, and operations.	Less Than Significant Impact.
Cumulative Impacts			
Development associated with the proposed project could result in cumulatively considerable impacts to parks and recreational facilities.	Potentially Significant Impact.	Refer to Mitigation Measure PR-1. No additional mitigation measures are required.	Less Than Significant Impact.
WATER			
Implementation of the proposed project could result in increased demand for water supplies and infrastructure within the City.	Potentially Significant Impact.	WAT-1 Prior to the issuance of a building permit for any future development project, the project applicant shall submit a hydraulic analysis to the San Bernardino Municipal Water Department to determine if water infrastructure upgrades (i.e., pipeline diameter increases for fire flow) are necessary. If the hydraulic analysis determines that upgrades are necessary, the project applicant shall be responsible for their fair-share of the improvements.	Less Than Significant Impact.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impacts			
Implementation of the proposed project could result in cumulatively considerable impacts to water resources including increased demand for water supplies and infrastructure within the City.	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan are required.	Not Applicable.
WASTEWATER			
Implementation of the proposed project could result in increased demand for wastewater services and infrastructure in the City.	Potentially Significant Impact.	WW-1 Prior to issuance of a wastewater permit for any future development project, the project applicant shall pay applicable connection and/or user fees to the City. WW-2 Prior to issuance of a building permit for any future development project, the project applicant shall prepare an engineering study to determine the adequacy of the sewer systems and submit the engineering study to the City for review and approval. WW-3 Prior to issuance of a building permit for any future development project, the project applicant shall provide evidence that the City and the City of San Bernardino Municipal Water Department has sufficient wastewater transmission and treatment plant capacity to accept sewage flows from buildings for which building permits are being requested.	Less Than Significant Impact.
Cumulative Impacts			
Implementation of the proposed project could result in cumulatively considerable impacts to wastewater systems, including increased demand and infrastructure facilities within the City.	Potentially Significant Impact.	Refer to Mitigation Measures WW-1 through WW-3. No additional mitigation measures are required.	Less Than Significant Impact.

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
SOLID WASTE			
Implementation of the proposed project could potentially result in increased solid waste generation in exceedance of landfill capacity.	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan are required.	Not Applicable.
Cumulative Impacts			
Implementation of the proposed project could result in cumulatively considerable impacts related to solid waste disposal services and landfill disposal capacity.	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan are required.	Not Applicable.
ELECTRICITY AND NATURAL GAS			
Electricity			
Implementation of the proposed project could increase the demand for electricity services and facilities.	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan are required.	Not Applicable.
NATURAL GAS			
Implementation of the proposed project could increase the demand for natural gas services and facilities.	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan are required.	Not Applicable.
Cumulative Impacts			
Implementation of the proposed project combined with other related cumulative projects could result in cumulatively considerable electricity and natural gas impacts.	Less Than Significant Impact.	No mitigation measures beyond the goals and policies identified in the General Plan are required.	Not Applicable.

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SECTION 2.0
INTRODUCTION AND PURPOSE

2.0 INTRODUCTION AND PURPOSE

The Mayor and Common Council of the City of San Bernardino ("Mayor and Common Council") created the Redevelopment Agency (Agency) of the City of San Bernardino in 1958 with the responsibility of initiating and managing redevelopment projects and activities within the redevelopment Project Areas in the City of San Bernardino. The Agency was formed to assist the City in the elimination of physical and social blight, as well as the creation of jobs, construction of affordable housing, and attraction of new businesses into the region. The Mayor and Common Council Members act as the governing body of the Agency. Agency staff oversees redevelopment activities in the Agency's Project Areas.

2.1 AUTHORITY

The Redevelopment Agency is the Lead Agency under the *California Environmental Quality Act* (*CEQA*) and is responsible for preparing a Program Environmental Impact Report (EIR) for the San Bernardino Merged Area A Merger and Amendments (proposed project). This EIR has been prepared in conformance with *CEQA* (*California Public Resources* Code Section 21000 et seq.), and the *CEQA Guidelines* (*California Code of Regulations*, Title 14, Section 15000 et seq.). The principal *CEQA Guidelines* sections governing content of this document are Sections 15120 through 15132 (Content of an EIR), and Section 15168 (Program EIR).

In accordance with *CEQA Guidelines* Section 15121, a primary purpose of this EIR is to provide decision-makers and the public with specific information regarding the environmental effects associated with the proposed project, identify ways to minimize the significant effects, and describe reasonable alternatives to the project. Mitigation measures are provided in order to reduce the significance of impacts resulting from the proposed project. In addition, this EIR is the primary reference document in the formulation and implementation of a mitigation monitoring program for the proposed project.

The purpose of this EIR is to review the existing conditions, analyze potential environmental impacts, and identify feasible mitigation measures to avoid or lessen potentially significant effects of the proposed project. The proposed project involves various redevelopment plan amendments and the merger of seven of the Agency's Project Areas. The Project Areas under consideration include Central City North, Southeast Industrial Park, Tri-City, South Valle, Meadowbrook/Central City, Central City East, and Central City South (Merged Area A). The Agency is proposing a Merged, Amended, and Restated Redevelopment Plan for these Project Areas. For more detailed information regarding the proposed project, refer to Section 3.0, Project Description.

This EIR has been prepared as a Program EIR in accordance with *CEQA Guidelines* Section 15168, which states the following:

> *(a) General. A Program EIR is an EIR, which may be prepared on a series of actions that can be characterized as one large Project and are related either:*
>
> *(1) Geographically,*
>
> *(2) As logical parts in the chain of contemplated actions,*

(3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or

(4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

(b) Advantages. Use of a Program EIR can provide the following advantages. The Program EIR can:

(1) Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action,

(2) Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis,

(3) Avoid duplicative reconsideration of basic policy considerations,

(4) Allow the Lead Agency to consider broad policy alternatives and program-wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts, and

(5) Allow reduction in paperwork.

(c) Use with Later Activities. Subsequent activities in the program must be examined in the light of the Program EIR to determine whether an additional environmental document must be prepared.

(1) If a later activity would have effects that were not examined in the Program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration.

(2) If the agency finds that pursuant to Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the Program EIR, and no new environmental document would be required.

(3) An agency shall incorporate feasible mitigation measures and alternatives developed in the Program EIR into subsequent actions in the program.

(4) Where the subsequent activities involve site-specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operations were covered in the Program EIR.

(5) A Program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the Program EIR, and no further environmental documents would be required.

CEQA Guidelines Section 15168 describes the proper process for Program EIRs, as follows:

> *Use of the Program EIR also enables the Lead Agency to characterize the overall program as the project being approved at that time. Following this approach when individual activities within the program are proposed, the agency would be required to examine the individual activities within the program to determine whether their effects were fully analyzed in the Program EIR. If the activities would have no effects beyond those analyzed in the Program EIR, the agency could assert that the activities are merely part of the program, which had been approved earlier, and no further CEQA compliance would be required. This approach offers many possibilities for agencies to reduce their costs of CEQA compliance and still achieve high levels of environmental protection.*

In accordance with *CEQA Guidelines* Section 15121, the main purposes of this EIR are to:

- Provide decision-makers and the public with specific information regarding the environmental effects associated with the proposed project;
- Identify ways to minimize the significant effects of the project; and
- Describe reasonable alternatives to the project.

The Redevelopment Agency has principal responsibility of processing and approving the proposed project, and other public (i.e., responsible and trustee) agencies that may use this EIR in the decision-making or permit process will consider the information in this EIR, along with other information that may be presented during the *CEQA* process. Environmental impacts are not always mitigatable to a level considered less than significant; in those cases, impacts are considered significant unavoidable impacts. In accordance with *CEQA Guidelines* Section 15093(b), if a public agency approves a project that has significant impacts that are not substantially mitigated (i.e., significant unavoidable impacts), the agency shall state in writing the specific reasons for approving the project, based on the Final EIR and any other information in the public record for the project. This is termed, per *CEQA Guidelines* Section 15093, a "statement of overriding considerations."

This document analyzes the environmental effects of the proposed project to the degree of specificity appropriate to the current proposed actions, as required by *CEQA Guidelines* Section 15146.

2.2 EIR SCOPING PROCESS

In compliance with the *CEQA Guidelines*, the Agency has taken steps to maximize opportunities to participate in the environmental process. During the preparation of the Draft EIR, efforts were undertaken to contact various Federal, State, regional, and local government agencies and other interested parties to solicit comments and inform the public of the proposed project. This included the distribution of an Initial Study and Notice of Preparation (NOP).

2.2.1 INITIAL STUDY

In accordance with *CEQA Guidelines* Section 15063(a), the Agency undertook the preparation of an Initial Study. The Initial Study determined that a number of environmental issue areas may be impacted by implementation of the proposed project. As a result, the Initial Study determined that the EIR should address the proposed project's potentially significant impacts on the following environmental issue areas:

- Aesthetics;
- Air Quality & Global Climate Change;
- Biological Resources;
- Cultural Resources;
- Geology/Soils;
- Hazards & Hazardous Materials;
- Hydrology/Water Quality;
- Land Use/Planning;
- Noise;
- Population/Housing;
- Public Services;
- Recreation;
- Transportation/Traffic; and
- Utilities/Service Systems.

Based on the Initial Study, issues for which no significant impacts are anticipated to occur are described in detail in the Initial Study (Appendix A) and addressed in Section 8.0, Effects Found Not To Be Significant, in this EIR.

2.2.2 NOTICE OF PREPARATION

Pursuant to the provision of *CEQA Guidelines* Section 15082, the Agency circulated a Notice of Preparation (NOP) to public agencies, special districts, and members of the public requesting such notice for a 30-day period commencing on November 24, 2009, and ending on December 23, 2009. The purpose of the NOP was to formally convey that the Redevelopment Agency is preparing a Draft EIR for the proposed project and that, as Lead Agency, it was soliciting input regarding the scope and content of the environmental information to be included in the EIR. The Initial Study was circulated with the NOP. The NOP, Initial Study, and responses to the NOP are provided, respectively, in Appendix A, Initial Study/Notice of Preparation, and Appendix B, NOP Comments.

2.2.3 NOP SCOPING RESULTS

The specific environmental concerns outlined below were raised by responses to the NOP for the proposed project. NOP comments are provided in Appendix B.

- City of Highland: 1) No comments at this time.

- Department of Public Works, County of San Bernardino: 1) No comments at this time.

- Department of Toxic Substances Control (DTSC): The DTSC acknowledges that existing or proposed uses in the Project Area may involve hazardous materials. The comment identifies a number of items to be reviewed in the EIR, including but not limited to: current or historic uses that resulted in a release of hazardous materials or substances; mechanisms to initiate or require site remediation; requirements for site investigations and remediation; oversight by proper regulatory agencies; procedures to investigate for lead-based paints or products, mercury, or asbestos-containing materials; soil or water sampling during construction, if warranted; human health concerns; how hazardous wastes are to be managed; and requirements if site was previously used for agriculture or livestock activities, and DTSC cleanup oversight.

- League of Women Voters of San Bernardino: 1) Interested in how the project will be an improvement over what is currently being done in the seven Project Areas and are concerned about the impacts it will have on the environment. 2) There should be a public participation program to inform residents of the plans being made and to give them opportunities for input throughout the process. 3) What will the overall effect of the project be and how will adverse effects be mitigated? How will that affect the feasibility of the project? 4) How much impact will there be on the existing housing and how many people could be displaced by the project? 5) How does the project fit into the planning goals/objectives of the City? The area?

- Municipal Water Department, City of San Bernardino: 1) No comments at this time.

- Native American Heritage Commission: 1) Contact the appropriate regional archaeological Information Center for a record search. 2) If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey. 3) Contact the Native American Heritage Commission. 4) Lack of surface evidence of archeological resources does not preclude their subsurface existence.

- Public Utilities Commission, State of California: 1) Recommends that the City add language to the redevelopment plan so that any future planned development adjacent to or near the railroad right-of-way be planned with the safety of the rail corridor in mind. New developments may increase traffic volumes not only on streets and at intersections, but also at nearby at-grade highway-rail crossings. This includes considering pedestrian circulation patterns/destinations with respect to railroad right-of-way. 2) Mitigation measures to consider to include, but are not limited to, the planning for grade separations for major thoroughfares, improvements to existing at-grade highway-rail crossings due to increase in traffic volumes and continuous vandal resistant fencing or other appropriate barriers to limit the access of trespassers onto the railroad right-of-way. 3) Language should be in place so that any traffic impact studies undertaken should also address traffic increase impacts over affected crossings and associated proposed mitigation measures.

- South Coast Air Quality Management District: 1) Recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the draft environmental impact report.

2.3 COMPLIANCE WITH CEQA

2.3.1 PUBLIC REVIEW OF DRAFT EIR

The Draft EIR is subject to a 45-day review period by responsible and trustee agencies and interested parties. In accordance with the provision of *CEQA Guidelines* Sections 15085(a) and 15087(a)(1), the Redevelopment Agency, serving as the Lead Agency: 1) publishes a notice of availability of a Draft EIR in newspapers of general circulation, which states that the Draft EIR will be available for review at City of San Bernardino City Hall located at 300 N. "D" Street and the Economic Development Agency located at 201 North "E" Street, Suite 301; and 2) prepares and transmits a Notice of Completion (NOC) to the State Clearinghouse. Proof of publication is available at the City of San Bernardino.

Any public agency or members of the public desiring to comment on the Draft EIR must submit their comments in writing to the individual identified on the document's NOC prior to the end of the public review period. Either during or following the close of the public review period, the Redevelopment Committee will hold a regularly scheduled public meeting regarding the Draft EIR. The public will be afforded the opportunity to orally comment on the Draft EIR at the public meeting. Such comments shall be recorded and shall have the same standing and response requirements as written comments provided during the public review period. Upon the close of the public review period, the Lead Agency will then proceed to evaluate and prepare responses to all relevant oral and written comments received from both citizens and public agencies during the public review period.

2.3.2 FINAL EIR

The Final EIR will consist of the Draft EIR, revisions to the Draft EIR, responses to comments addressing concerns raised by responsible agencies or reviewing parties, and the mitigation monitoring program. After the Final EIR is completed and at least 10 days prior to its certification, a copy of the responses to comments made by public agencies on the Draft EIR will be provided to the respective agencies.

2.4 INTENDED USES OF THIS EIR

The Redevelopment Agency, as the Lead Agency for the proposed project, will use this Program EIR in consideration of the proposed project. This document will provide environmental information to several other agencies affected by the proposed project, or which are likely to have an interest in the proposed project. Various State and Federal agencies exercise control over certain aspects of the study area. The various public, private, and political agencies and jurisdictions with particular interest in the proposed project include, but are not limited to, the following:

- California Air Resources Board (CARB)
- California Department of Conservation
- California Department of Fish and Game
- California Department of Transportation (Caltrans)
- California Department of Toxic Substances Control (DTSC)
- California Environmental Protection Agency (CalEPA)
- California Office of Emergency Services
- California Public Utilities Commission
- California Regional Water Quality Control Board (CRWQB)
- California Reclamation Board (CRB)
- Cal State University San Bernardino
- City of Bloomington
- City of Colton
- City of Grand Terrace
- City of Highland
- City of Loma Linda
- City of Muscoy
- City of Redlands
- City of Rialto
- Colton Joint Unified School District
- County of San Bernardino
- East Valley Water District
- Metropolitan Water District of Southern California
- Native American Heritage Commission
- Redlands Unified School District
- Rialto Unified School District
- San Bernardino County Fire Department
- San Bernardino Valley College
- San Bernardino Unified School District
- South Coast Air Quality Management District (SCAQMD)
- Southern California Association of Governments (SCAG)
- U.S. Environmental Protection Agency (U.S. EPA)

2.5 FORMAT OF THE PROGRAM EIR

The Draft EIR is organized into 13 sections, plus five Appendices, as follows.

Section 1.0, Executive Summary, provides a brief project description and summary of the environmental impacts and mitigation measures.

Section 2.0, Introduction and Purpose, provides CEQA compliance information.

Section 3.0, Project Description, describes the proposed project in detail indicating project location, background and history, and project characteristics, phasing and objectives, as well as associated discretionary actions required.

Section 4.0, Basis of Cumulative Analysis, describes the approach and methodology for the cumulative analysis.

Section 5.0, Environmental Analysis, contains a detailed environmental analysis of the existing conditions, project impacts (including direct and indirect, short-term and long-term, and cumulative), recommended mitigation measures, and unavoidable adverse impacts.

Section 6.0, Alternatives, describes a reasonable range of alternatives to the proposed project or to the location of the project that could feasibly attain the basic project objectives.

Section 7.0, Growth Inducing Impacts of the Proposed Project, discusses growth-inducing impacts associated with the proposed project.

Section 8.0, Effects Found Not To Be Significant, explains potential impacts that have been determined not to be significant.

Section 9.0, Significant Environmental Effects Which Cannot be Avoided if the Proposed Action is Implemented, discusses significant environmental changes that would be involved with the proposed project, should it be implemented.

Section 10.0, Significant Irreversible Environmental Changes Which Would be Involved if the Proposed Project Were Implemented, discusses significant irreversible environmental changes that would be involved with the proposed project, should it be implemented.

Section 11.0, References, identifies all Federal, State or local agencies, other organizations, and individuals consulted in the preparation of the EIR.

Section 12.0, Mitigation Monitoring Program (in Final EIR), identifies those mitigation measures, milestones, and responsibility for monitoring each measure that may be included as conditions of approval for the proposed project.

Section 13.0, Comments and Responses (in Final EIR), includes comments and recommendations received on the Draft EIR either verbatim or in summary; a list of persons, organizations, and public agencies commenting on the Draft EIR; the responses of the Lead Agency to significant environmental points raised in the review and consultation process; and any other information added by the Lead Agency.

The following Appendices contain the technical documentation for the proposed project:

A: Initial Study Checklist/Notice of Preparation

B: Notice of Preparation Comments

C: Public Service and Utility Correspondence

D: Biological Resources

E1: Cultural Resources Appendix 1 – Original Plan of the City of San Bernardino

E2: Cultural Resources Appendix 2 – Information on Subdivisions in San Bernardino Based on Assessor's Map Books and County Recorders Map Books

E3: Cultural Resources Appendix 3 – Historic Property Data File for the City of San Bernardino on File at the San Bernardino Archaeological Information Center, San Bernardino County Museum, Redlands

E4: Cultural Resources Reports for the Seven Redevelopment Areas on File at the San Bernardino Archaeological Information Center, San Bernardino County Museum, Redlands

E5: Cultural Resources Recorded in the Seven Redevelopment Areas at the San Bernardino Archaeological Information Center, San Bernardino County Museum, Redlands

F1: Traffic Appendix A – Trip Generation by Project Area

F2: Traffic Appendix B – Internal Trip Capture Worksheets

G: Vacant Land Development Potential

H: San Bernardino International Airport Environmental Cleanup Activities

2.6 INCORPORATION BY REFERENCE

Pertinent documents relating to this EIR have been cited in accordance with *CEQA Guidelines* Section 15148, which encourages "incorporation by reference" as a means of reducing redundancy and length of environmental reports. The following documents, which are available for public review at the City of San Bernardino Economic Development Agency located at 201 North "E" Street, Suite 301, San Bernardino, California, are hereby incorporated by reference into this EIR. Information contained within these documents has been utilized for each section of this EIR. A brief synopsis of the scope and content of these documents are provided below.

City of San Bernardino General Plan (November 1, 2005). The City of San Bernardino General Plan provides comprehensive planning for the future of the City. The goals and policies contained in the General Plan are provided to guide the decision-makers. The General Plan is currently comprised of the following mandatory and optional elements: Land Use; Housing; Economic Development; Community Design; Circulation; Public Facilities and Services; Parks, Recreation, and Trails; Utilities; Safety; Historical and Archeological Resources; Natural Resources and Conservation; Energy and Water Conservation; and Noise. The analysis of existing conditions and potential project impacts included in this EIR incorporates information from all elements of the General Plan.

Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report (September 30, 2005). The document contains responses to comments received on the San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report (DEIR), State Clearinghouse #2004111132, during the public review period, which commenced on July 25, 2005, and closed on September 8, 2005. The Response to Comments volume, together with the DEIR, technical appendices, and other written documentation prepared during the EIR process constitute the Final EIR.

Draft (DEIR) San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report (July 25, 2005). The EIR provided analysis for the topics of: Aesthetics; Air Quality; Biological Resources; Cultural Resources; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use and Planning; Mineral Resources; Noise; Population and Housing; Public Services; Recreation; Transportation and Traffic; and Utilities and Service Systems. The EIR identified three significant unavoidable impacts associated with implementation of the General Plan Update: 1) Air Quality; 2) Noise; and 3) Traffic. All other impacts identified in the EIR were at less than significant levels or could be mitigated to less than significant levels. A discussion of the significant unavoidable impacts is provided below.

Air Quality

GP IMPACT 5.2-2: CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROPOSED PROJECT WOULD GENERATE SHORT-TERM EMISSIONS WHILE LONG-TERM OPERATION OF THE PROJECT WOULD GENERATE ADDITIONAL VEHICLE TRIPS AND ASSOCIATED EMISSIONS IN EXCEEDANCE OF SCAQMD'S THRESHOLD CRITERIA. [THRESHOLDS AQ-2 AND AQ-3]

GP IMPACT 5.2-3: IMPLEMENTATION OF THE SAN BERNARDINO GENERAL PLAN UPDATE WOULD RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF CRITERIA POLLUTANTS FOR WHICH THE PROJECT REGION IS IN A STATE OF NON-ATTAINMENT. [THRESHOLD AQ-3]

Implementation of the General Plan Update when viewed as a whole project is expected to generate emissions levels in exceedance of AQMD's threshold criteria for CO, ROG, NOx, and PM10 in the SoCAB. General Plan Impact 5.2-2 and Impact 5.2-3 would remain significant, resulting in an unavoidable adverse air quality impact due to the magnitude of emissions that would be generated during construction and operation.

Noise

GP IMPACT 5.10-4: THE SAN BERNARDINO INTERNATIONAL AIRPORT IS LOCATED WITHIN THE CITY OF SAN BERNARDINO, RESULTING IN EXPOSURE OF FUTURE RESIDENTS TO AIRPORT-RELATED NOISE. [THRESHOLDS N-5 AND N-6]

Until the Airport Master Plan has been adopted by the SBIAA and corresponding noise contours have been established, the extent of impact to parkland near the airport cannot be determined. Parkland is designated as a sensitive use in the General Plan and should the noise contour exceed the limitations established by the General Plan, no foreseeable mitigation could be accomplished if the park were to remain in use. Under those circumstances, the impact would be considered a significant adverse and unavoidable impact.

Traffic

GP IMPACT 5.14-2: GENERAL PLAN RELATED TRIP GENERATION IN COMBINATION WITH EXISTING AND PROPOSED CUMULATIVE DEVELOPMENT WOULD RESULT IN DESIGNATED INTERSECTIONS, ROAD AND/OR HIGHWAYS EXCEEDING COUNTY CONGESTION MANAGEMENT AGENCY SERVICE STANDARDS. [THRESHOLD T-2]

While potential impacts to the freeway mainline segments and ramps have been evaluated and mitigation measures suggested to reduce impacts, improvements to the freeway system are the responsibility of the existing regional transportation agencies and not the City of San Bernardino. Without the authority to implement the mitigation measures, the impact to freeway segments would remain significant and unavoidable, requiring a statement of overriding considerations.

City of San Bernardino Municipal Code. The City's Municipal Code consists of all regulatory, penal, and administrative ordinances of the City of San Bernardino. It is the method the City uses to implement control and land uses, in accordance with applicable goals and policies. The City of San Bernardino Development Code (Title 19 of the Municipal Code) identifies the permitted land uses according to zoning category of particular parcels.

2.7 CEQA DOCUMENT TIERING

Both the *Public Resources Code* and the *CEQA Guidelines* discuss the use of "tiering" environmental impact reports by lead agencies. *Public Resources Code* Section 21068.5 defines "tiering" as:

"The coverage of general matters and environmental effects in an environmental impact report prepared for a policy, plan, program or ordinance followed by narrower or site-specific environmental impact reports which incorporate by reference the discussion in any prior environmental impact report and which concentrate on the environmental effects which: (a) are capable of being mitigated, or (b) were not analyzed as significant effects on the environment in the prior environmental impact report."

Tiering is a method to streamline EIR preparation by allowing a Lead Agency to focus on the issues that are ripe for decision and exclude from consideration issues already decided or not yet read for decisions (*CEQA Guidelines* Sections 15152 and 15385). The concept of tiering anticipates a multi-tiered approach to preparing EIRs. The first-tier EIR covers general issues in a broader program-oriented analysis, including important program resource and mitigation commitments required to be implemented at the project-level. Subsequent tiers incorporate by reference the general discussions from the broader document, concentrating on the issues specific to the proposed action being evaluated (*CEQA Guidelines* Section 15152).

First-tier documents are usually Program EIRs, Master EIRs, General Plan EIRs, Staged EIRs, Redevelopment Plan EIRs, or similar EIRs. Second-tier documents are typically Project EIRs, Focused EIRs, and Mitigated Negative Declarations that evaluate the impacts of a single activity undertaken to implement the plan, program, or policy.[1]

When an EIR has been prepared and certified for a program or plan consistent with *CEQA's* tiering requirements, a Lead Agency for a later project pursuant to or consistent with the program or plan should limit the EIR on the later project to effects that were not examined as significant effects on the environment in the prior EIR. In those situations where a programmatic document does not specifically address and analyze the impacts and mitigation measures necessary for a project-level action, the project-level environmental review can be streamlined by tiering from the program-level documents. Agencies are encouraged to tier their

[1] Ibid.

CEQA analysis to avoid repetition of issues and to focus on the issues for decision at each level of review. Subsequent *CEQA* compliance involves either the preparation of an EIR or Negative Declaration.

For purposes of tiering, significant environmental effects have been "adequately addressed" in the first-tier document if the Lead Agency determines that the significant environmental effects:

- Have been mitigated or avoided as a result of the prior EIR and adopted findings in connection with that prior EIR

- Have been examined at a sufficient detail in the prior EIR to enable those effects to be mitigated or avoided by site-specific revisions, the imposition of conditions, or by other means with the approval of the later project; and

- Cannot be mitigated to avoid or substantially lessen the significant impacts despite the project proponent's willingness to accept all feasible mitigation measures, and the only purpose of including analysis of such effects in another EIR would be to put the agency in a position to adopt a statement of overriding considerations with respect to the effects.

In the case of this proposed project, a Final EIR was certified for the City of San Bernardino General Plan in November 2005. The General Plan EIR analyzed the impacts associated with implementation of the goals and policies contained in the City's General Plan that are intended to guide growth and development in the City.

The General Plan EIR is considered a first-tier EIR. The EIR for this proposed project is considered a second-tier EIR, and the analysis in this EIR has: 1) incorporated by reference the General Plan EIR and 2) will tier the analysis in this EIR to focus on impacts not previously analyzed in the General Plan EIR.

The first-tier EIR (General Plan EIR) provided analysis for the topics of: Aesthetics; Air Quality; Biological Resources; Cultural Resources; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use and Planning; Mineral Resources; Noise; Population and Housing; Public Services; Recreation; Transportation and Traffic; and Utilities and Service Systems.

For purposes of this EIR, the General Plan EIR has adequately addressed the proposed project's impacts related to Agricultural Resources and Mineral Resources, as the growth anticipated under the proposed project is consistent with and accounted for in the projected growth anticipated under the General Plan. Topics to be tiered off the General Plan EIR in this EIR (second-tier EIR) include Land Use; Population and Employment; Aesthetics; Traffic; Air Quality/Greenhouse Gas; Noise; Geology and Seismic Hazards; Hydrology and Water Quality; Hazards/Risk of Upset; Fire Protection; Police Protection; School Facilities; Parks and Recreational Facilities; Water; Wastewater; Solid Waste; and Electricity and Natural Gas.

This second-tier EIR will be used by the Lead Agency (Redevelopment Agency) to evaluate the proposed project's environmental impacts, and can be further used to modify, approve, or deny the approval of the proposed project based on the analysis it provides.

SECTION 3.0
PROJECT DESCRIPTION

3.0 PROJECT DESCRIPTION

3.1 ENVIRONMENTAL LOCATION AND SETTING

The proposed San Bernardino Merged Area A Merger & Amendments Project (proposed project) is generally located in the southeast portion of the City of San Bernardino east of Interstate 215 (I-215) from 8th Street to the Interstate 10 (I-10) interchange, and also along I-10 from the I-215 interchange to Mountain View Avenue. A portion of the Southeast Industrial Park Project Area is located west of the I-215 and the South Valle Project Area is located south of I-10. In addition, a portion of the Tri-City Project Area is located along Del Rosa Drive between Baseline and 6th Street (refer to *Exhibit 3-1*, *Regional Location Map,* and *Exhibit 3-2*, *Existing Project Areas*).

3.2 BACKGROUND

3.2.1 HISTORY

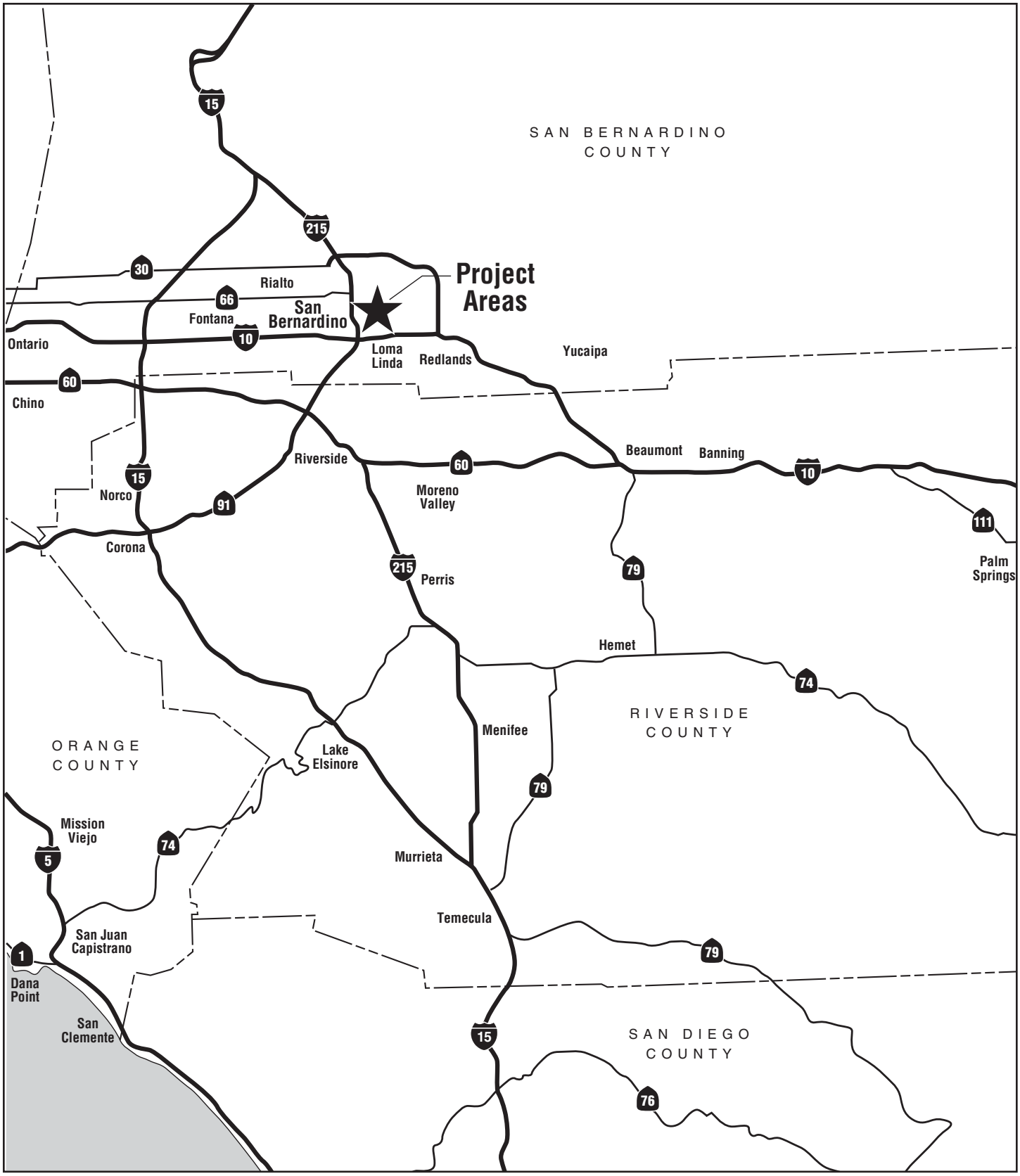
CALIFORNIA COMMUNITY REDEVELOPMENT LAW

The *California Community Redevelopment Law* (*CRL*) authorizes cities and counties to adopt and amend redevelopment plans intended to revitalize and rehabilitate blighted areas. Redevelopment plans provide a means for redevelopment agencies to encourage private reinvestment in blighted areas through provision of various forms of assistance. Redevelopment is intended to eliminate deficiencies and cause the comprehensive planning, redesign, and reconstruction of specific areas to facilitate a higher and better utilization of land.

Redevelopment is also intended to increase construction activities and employment opportunities; provide economic stimulation through commercial growth and expansion; and to increase, improve, and preserve the City's affordable housing stock and thereby make affordable housing available to persons of very low, low, and moderate income.

ABOUT THE REDEVELOPMENT AGENCY

The Mayor and Common Council of the City of San Bernardino (Mayor and Common Council) created the Redevelopment Agency (Agency) of the City of San Bernardino in 1958 with the responsibility of initiating and managing redevelopment projects and activities within the redevelopment Project Areas in the City of San Bernardino. The Agency was formed to assist the City in the elimination of physical and social blight, as well as the creation of jobs, construction of affordable housing, and attraction of new businesses into the region. The Mayor and Common Council Members act as the governing body of the Agency. Agency staff oversees redevelopment activities in the Agency's Project Areas.



NOT TO SCALE

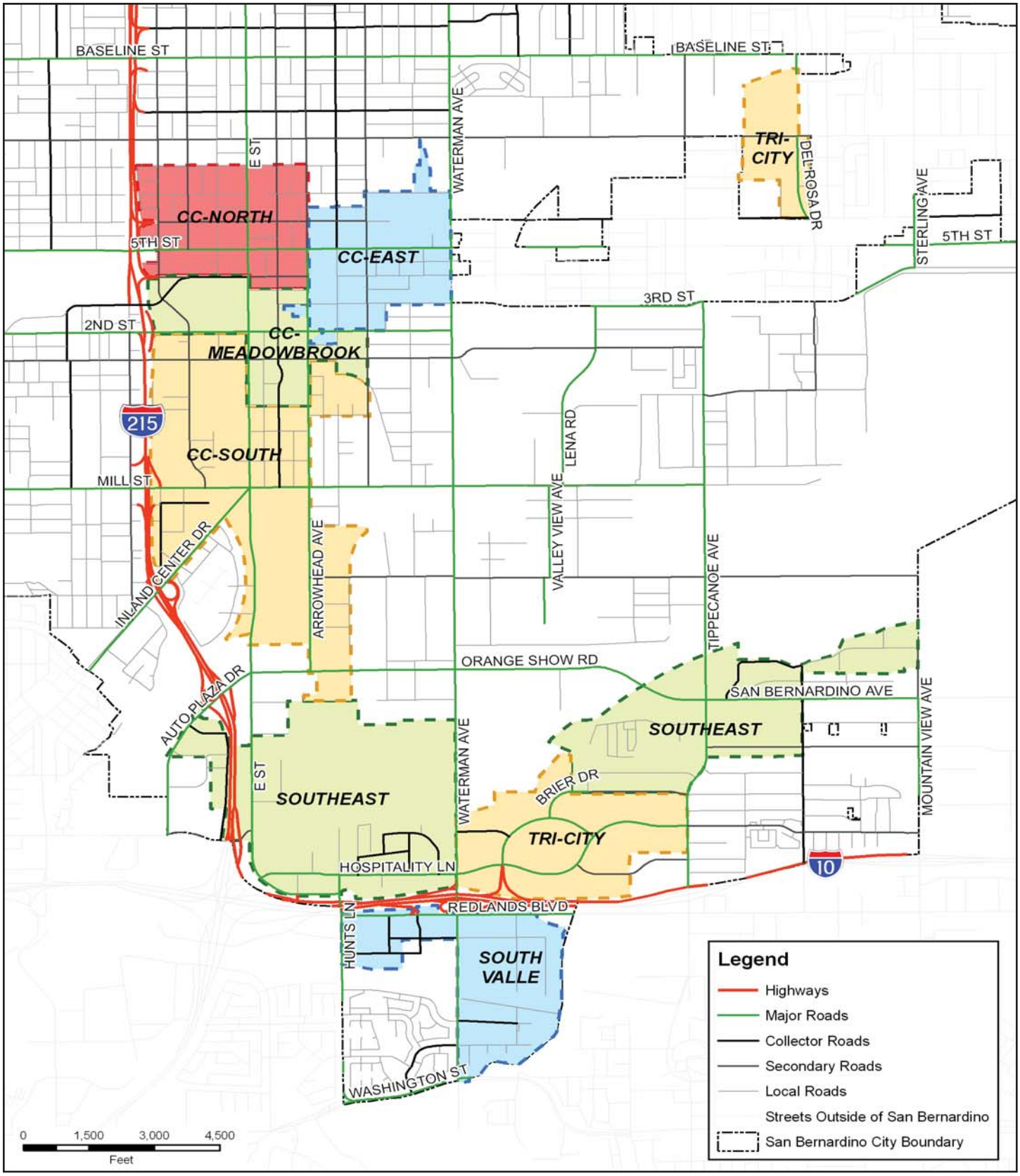
RBF CONSULTING

12/10 • JN 65-100614

ENVIRONMENTAL IMPACT REPORT
SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS

Regional Location Map

Exhibit 3-1



ENVIRONMENTAL IMPACT REPORT
SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS

Existing Project Areas

RBF CONSULTING

12/10 • JN 65-100614

Exhibit 3-2

The Economic Development Agency (EDA) is a "focused, diversified organization whose mission is to enhance the quality of life for the citizens of San Bernardino by creating jobs, eliminating physical and social blight, supporting culture and the arts, and developing a balanced mix of quality housing, along with attracting and assisting businesses both independent and through public-private partnerships."[1]

The first redevelopment Project Area within the City was adopted in 1958 – Meadowbrook Project Area. Since 1958, many of the City's redevelopment Project Areas have been amended to adapt to the changing needs of the City.

3.2.2 MERGED AREA A PROJECT AREAS

Descriptions of the seven Project Areas within Merged Area A are provided below.

CENTRAL CITY NORTH

The Central City North Project Area (CCN) was adopted on August 6, 1973, and spans 278 acres. Located east of the I-215 freeway near the San Bernardino Civic Center, this Project Area is composed of a mixture of retail, commercial, restaurant, professional service uses, and single-family residences. Since its adoption, various developments have occurred within this area (i.e., senior housing facilities, main library branch, a 20-screen multi-plex theater, and the Stater Bros. Central City Plaza). This redevelopment area is home to the Central Police Facility, which joins police staff, communications, and jail facilities all under one roof. In addition, administrative offices for the City Unified School District, County Superintendent of Schools and Community College District, and renovation of the 60-year old California Theater, have recently been completed. Additionally, the Central Police Facility and office tower and parking garage for the California Department of Transportation (CalTrans) were completed in this redevelopment Project Area during the mid-1990s.

SOUTHEAST INDUSTRIAL PARK

The Southeast Industrial Park (SEIP) Project Area was adopted on June 21, 1976, with a total of 870 acres. This Project Area is located in the southeast quadrant of the City, and is divided into two sections. The western section is devoted primarily to commercial complexes and professional offices, while the eastern section is predominantly devoted to light industrial uses.

The western section is adjacent to the I-10 and I-215 freeways interchange, offers a mix of professional office complexes, a restaurant row, a hotel with convention facilities, and various motels, retail, commercial, and light industrial uses. West of the I-215 freeway within this section is the San Bernardino Auto Plaza and various auto-related businesses.

The eastern section is occupied by manufacturing- and distribution-related warehouse uses, as well as vacant land available for development. This area is proximately located to the San Bernardino International Airport (formerly Norton Air Force Base). In addition, a portion of the land within this area is retained for flood control purposes adjacent to the Santa Ana River, which bisects a portion of this Project Area.

[1] Source: *City of San Bernardino Economic Development Agency website, http://www.sbrda.org/,* accessed March 30, 2010

TRI-CITY

The Tri-City Project Area was adopted on June 20, 1983, and contains 378 acres. This Project Area is divided into two subareas located in the southeast portion of San Bernardino.

Subarea I is located west of Del Rosa Avenue and north of 6th Street to Baseline Avenue. This area is zoned for residential development and is occupied by an apartment complex on a 12-acre site. The remainder of the land in this Project Area is owned and marketed by the Agency.

Subarea II is located east of Waterman Avenue, west of Tippecanoe Avenue, and north of the I-10 freeway. This area is occupied by the Tri-City Corporate Center, which is a mix of office, light industrial, retail, commercial, and a variety of restaurant uses.

SOUTH VALLE

The South Valle Project Area was adopted on July 9, 1984, and spans 289 acres. This Project Area is located south of the I-10 freeway within the southernmost portion of the City. Lying adjacent to the Commercenter area of the Southeast Industrial Park and Subarea II of the Tri-City Project Areas, this Project Area is characterized by a mixture of commercial, industrial, and residential developments adjacent to the I-10 and I-215 freeway interchange. The Project Area has rail service through the center, with a transcontinental truck terminal located adjacent to the Project Area at the southwest corner of Hunts Lane and Redlands Boulevard.

MERGED CENTRAL CITY PROJECTS

Central City Projects is the combination of three Project Areas encompassing 1,008 acres, which were merged in 1983. The three Project Areas are the Meadowbrook/Central City (M/CC), Central City East (CCE), and Central City South (CCS) Project Areas. Consolidation occurred to allow for more efficient management of Agency resources.

Meadowbrook/Central City – Adopted September 21, 1958/Adopted February 23, 1965

Central City East – Adopted May 3, 1976

Central City South – Adopted May 3, 1976

Totaling 1,008 acres, this Project Area encompasses Downtown San Bernardino and includes various administrative offices for Federal, State, County, and City departments; the 55-acre Seccombe Lake State Urban Park; and the 136-acre National Orange Show fairgrounds. In addition, this area includes the Court Street Square, which provides a site for public-oriented activities, the San Bernardino Stadium (home to the Inland Empire 66ers minor league baseball team), and the Carousel Mall. Within the area commonly known as the Superblock, an 11-story consolidated office tower and parking garage for the State Department of Transportation, CalTrans, was recently completed.

3.3 REDEVELOPMENT AGENCY GOALS

The Agency has established the following eight goals related to community reinvestment and revitalization for the 14 Redevelopment Project Areas in the City. The eight goals are defined by the following phrases: Live, Play, Work, Invest, Access, Go, Collaborate, and Preserve.

LIVE

Develop Community Identity. Foster community identity by promoting an environment characterized by architectural and urban design principles, developed through the encouragement, guidance, and professional assistance to owner participants and redevelopers.

PLAY

Improve Quality of Life. Increase the variety of recreational opportunities available to the residents within the Project Areas.

WORK

Create a Stronger Local Economy. Create local opportunities by attracting retail and other non-residential commercial and office uses, particularly along major thoroughfares.

INVEST

Invest, Promote, and Respect. Promote economic development in the Project Area(s) by providing an attractive, well-serviced, and well-protected environment. Encourage land disposition and development through land assembly and improved access to infrastructure and public services. Address incongruous land uses by developing landscape buffers and greenbelts.

ACCESS

Emphasize Infrastructure Improvements. Facilitate improvements to public infrastructure and facilities that serve the Project Areas, including installation, construction, reconstruction, redesign, or reuse of streets, utilities, curbs, gutters, sidewalks, and other public improvements.

GO

Improve and Develop Efficient Circulation Systems. Develop a circulation system that improves vehicular movement. Provide and regulate the provision of parking to meet the needs of residents and commercial businesses.

COLLABORATE

Encourage Community Engagement. Economically revitalize the Project Areas by supporting the cooperation and participation of residents, business owners, public agencies, and community organizations.

PRESERVE

Housing Accessible to All Families. Increase, improve, and preserve the supply of housing, especially housing affordable to very low, low, and moderate-income households. Increase home ownership in the residential portions of the Project Areas.

3.4 FIVE-YEAR IMPLEMENTATION PLAN[2]

The most recently adopted Implementation Plan is for fiscal years 2009-10 through 2013-2014.

STRATEGIC OBJECTIVES

The Agency's five-year work programs are structured around three consistent objectives intended to maximize the Agency's responsiveness to market opportunities, manage public and private risk, and facilitate the creation of public improvements and public housing.

Plans and Policies

Redevelopment is a catalyst and tool to pursuing the vision that is cast by City leaders through land use plans and policies. Long-range plans that support redevelopment activities provide policy direction to derive the greatest public benefit from redevelopment activities and projects, and discourage inefficient piecemeal development. By establishing land use objectives and policies, development standards and design guidelines, the City sets the policy stage for redevelopment and helps create a reduced-risk environment that more readily attracts private investment. Land use plans and policies also provide the framework for planning and financing infrastructure that will support new development.

Public Infrastructure and Facilities

As land use plans and policies are crafted and updated to support the revitalization goals of the City, the City and Agency must determine how to proactively finance and build public infrastructure and facilities needed to support new development. Tax increment generated from new development can be leveraged toward public improvements and facilities that benefit the entire Project Area and neighborhood, and not just individual development projects. By upgrading infrastructure that supports additional development, the Agency will greatly advance the revitalization goals of the City while creating an environment that attracts capital and is more readily responsive to market opportunities.

Catalytic Projects

Redevelopment acts as a "sparkplug" in city revitalization efforts, creating just enough energy and momentum in a city's economic engine to let it rev up and run on its own. By strategically focusing and leveraging resources on key "catalyst projects," redevelopment can spark enough market confidence to attract private investment to a city's revitalization vision and plans. In the current economic downturn and depressed real estate market, distressed opportunity areas

[2] Five-Year Implementation Plan, Redevelopment Agency of the City of San Bernardino, FY 2009-10 through 2013-2014, December 2009.

around the City have emerged containing vacant buildings and development-ready sites in key strategic locations along major corridors in the City.

REGIONAL STRATEGIES AND WORK PROGRAMS

A series of regional strategies were identified during the Agency's strategic planning process for the Implementation Plan. In addition to the strategies that are specific to Areas A and B, citywide strategies affecting both regions were also identified (refer to *Table 3-1*, *Merged Area A Work Program Strategies*). A description of each strategy is provided, which indicates the purpose of the strategy and how it relates to the activities recommended throughout the Project Area.

Table 3-1
Merged Area A Work Program Strategies

Strategy No.	Strategy Name	Strategy Description
Merged Area A Strategies		
A-1	Area A Project Areas Merger	The financial merger of the Merged Central City Projects (Central City East, Central City South, Meadowbrook/Central City), Central City North, Southeast Industrial Park, Tri-City, and South Valle Project Areas would allow the Agency to more effectively leverage and focus financial and staff resources to implement strategic initiatives and redevelopment projects located in the Eastern Project Areas.
A-2	Downtown Core Revitalization Strategy	In 2009, the City and Agency completed a Vision/Action Plan for the Downtown Core (bound by I-215, 6th Street and 7th Street, Waterman Avenue, and Rialto Avenue). This Work Program will facilitate the implementation of the Vision/Action Plan.
A-3	Tippecanoe Avenue & 3rd Street Corridors	The Tippecanoe Avenue Corridor travels north-south between 3rd Street and the I-10 Freeway. The 3rd Street Corridor travels east-west between Waterman Avenue and Palm Avenue. Both Corridors serve the San Bernardino International Airport and are considered *Distressed Opportunity Areas* with opportunities for infrastructure improvements and airport-supporting commercial/industrial reuse.
A-4	Hunts Lane Revitalization Strategy	Hunts Lane, just south of the I-10 Freeway, is considered a *Distressed Opportunity Area* that would be greatly served through a grade separation of the rail line and the reuse of vacant buildings and properties as regional-serving commercial uses.
A-5	E Street Corridor Revitalization Strategy	The E Street Corridor travels north-south along the eastern side of the I-215 Freeway. The Corridor is considered a *Distressed Opportunity Area* due to increased vacancies and business closings resulting from the current economic downturn. The declining Auto Park located near the I-215/I-10 freeway interchange is a key focus of this strategy.
A-6	Waterman Avenue Corridor Revitalization Strategy	The Waterman Avenue Corridor travels north-south between Baseline Avenue and 5th Street. It is considered a Distressed Opportunity Area with opportunities for infrastructure upgrades and affordable housing.

Table 3-1 (continued)
Merged Area A Work Program Strategies

Strategy No.	Strategy Name	Strategy Description
A-7	Base Line Street Corridor East	The eastern half of the Base Line Street Corridor travels east-west between the I-215 Freeway and Del Rosa Avenue. It is considered a *Distressed Opportunity Area* with opportunities for reuse of commercial and industrial properties along the Corridor.
A-8	Other Strategic Redevelopment Activities	Other Agency redevelopment projects and activities throughout the Eastern Project Areas.
Strategies Applicable to All Project Areas, Including Merged Area A Project Areas		
All-1	Implementation of sbX Bus Rapid Transit Project	The Agency will continue to partner with Omnitrans to implement the sbX Bus Rapid Transit Project throughout the Project Areas, including the construction of sbX stops.
All-2	Project Area Expansion Feasibility Study	The Agency will conduct a feasibility study for the possible expansion of the Project Areas beyond the current limits.
All-3	Brownfields Revitalization Program	The Agency will continue to develop and implement a comprehensive Brownfields Revitalization Program that seeks and leverages funding for the assessment, remediation, and revitalization of environmentally contaminated properties.
All-4	Economic Development Strategy	Prepare a citywide Economic Development Strategy that provides a comprehensive information handbook and roadmap for economic development activities in the City, including redevelopment, housing, public infrastructure and facilities, business attraction and retention, and civic engagement. The Implementation Plan will ultimately serve as a component of the City's overall Economic Development Strategy. The Strategy will include a comprehensive database of economic/market indicators that provide guidance for the development and implementation of near- and long-term strategies and work programs.
All-5	Business Attraction	Collaborate with major employers and educational institutions in the region to identify collaborative opportunities for the location of professional office and academic research facilities within the Project Areas.
All-6	Other Strategic Redevelopment Activities	Other Agency redevelopment projects and activities throughout all Project Areas.
Source: *Five-Year Implementation Plan, Redevelopment Agency of the City of San Bernardino, FY 2009-10 through 2013-14*, December 2009.		

The Five-Year Implementation Plan also identifies specific projects and programs that implement the strategies presented in *Table 3-1*.

3.5 PROJECT GOALS

Implementation of the proposed Merged, Amended, and Restated Redevelopment Plan for Merged Area A is intended to achieve the following goals:

- Eliminate and prevent the spread of conditions of blight, including but not limited to underutilized properties and deteriorating buildings, incompatible and uneconomic land uses, deficient infrastructure and facilities, obsolete structures, parking deficiencies and other economic deficiencies, in order to create a more favorable environment for commercial, industrial, office, residential, and recreational development.

- Encourage the cooperation and participation of residents, businesses, public agencies, and community organizations in the economic revitalization of Merged Area A.

- Promote the economic development of Merged Area A by providing an attractive, well-serviced, well protected environment for residents and visitors.

- Develop property within a coordinated land use pattern of residential, commercial, industrial, recreational, and public facilities in Merged Area A consistent with the goals, policies, objectives, standards, guidelines, and requirements, as set forth in the City's adopted General Plan and Zoning Code.

- Implement design and use standards to assure high aesthetic and environmental quality, and provide unity and integrity to development within Merged Area A.

- Eliminate environmental deficiencies and inadequate public improvements, including but not limited to inadequate street improvements and off-site parking, inadequate utility systems, and inadequate public services and facilities.

- Develop efficient and safe circulation improvements for vehicles and pedestrians.

- Implement beautification activities to improve the visual image of the City as well as reinforce existing assets and expand the potential of Merged Area A to encourage private investment.

- Encourage, promote, and assist in the development and expansion of local commerce and needed commercial and industrial facilities, including providing assistance to finance facilities or capital improvements on property used for industrial or manufacturing purposes to increase local employment and improve the economic climate within Merged Area A.

- Remove impediments to land disposition and development through improved infrastructure and public facilities, and the acquisition and assemblage of property into usable sites for commercial, industrial, recreational, and public facility development.

- Increase, improve, and preserve housing affordable to very low, low, and moderate income households, as well as promote homeownership, consistent with the goals and objectives of the community.

- Encourage the restoration and reuse of older, historic structures which add to the City's character and sense of community identity.

3.6 PROJECT CHARACTERISTICS

3.6.1 PROJECT OVERVIEW

The proposed project is intended to accomplish the following:

- Merge and increase both the total amount of tax increment revenue the Agency may collect and the total amount of bonded indebtedness which can be outstanding at one time within Merged Area A;
- Update and expand the capital improvement projects list for Merged Area A;
- Extend by ten years the effectiveness of the Redevelopment Plans and the time to collect tax increment revenue from the Meadowbrook/Central City and Central City North Project Areas;
- Amend the existing Redevelopment Plans to merge the Meadowbrook/Central City, Central City North, Central City South, Central City East, Southeast Industrial Park, Tri-City, and South Valle Project Areas for financial reasons and as allowed by the *California Community Redevelopment Law* (*CRL*) Health and Safety Code Section 33000, et seq.;
- Adopt a single Merged, Amended, and Restated Redevelopment Plan for the proposed Merged Area A.

The Merged Plan has been prepared by the Agency pursuant to Redevelopment Law, the California Constitution, and all applicable laws and ordinances. It does not present a specific plan for the redevelopment, rehabilitation, and revitalization of any area within Merged Area A; instead, it establishes a process and framework for implementation.

Additional details regarding the proposed project are providing in the following sections.

3.6.2 MERGER AND AMENDMENTS[3]

In accordance with the *California Community Redevelopment Law* (*CRL*) (*Health and Safety Code* Section 33000 et seq.), the Redevelopment Agency of the City of San Bernardino ("Agency") is proposing various redevelopment plan amendments and the merger of seven of the Agency's Project Areas ("Project Areas"). The seven Project Areas under consideration include Central City North, Southeast Industrial Park, Tri-City, South Valle,

[3] Source: *Preliminary Report, San Bernardino Merged Area A Merger & Amendments*; April 5, 2010, prepared by Rosenow Spevacek Group.

Meadowbrook/Central City, Central City East, and Central City South, collectively referred to as "Merged Area A" and individually referred to as "Project Area" (refer to *Table 3-2*, *Project Area Acreage*). *Exhibit 3-3*, *Proposed Project Area*, depicts the new boundary for the proposed project. As part of the Merger and Amendments, the Agency is proposing to adopt a single Merged, Amended, and Restated Redevelopment Plan for Merged Area A ("Merged Plan").

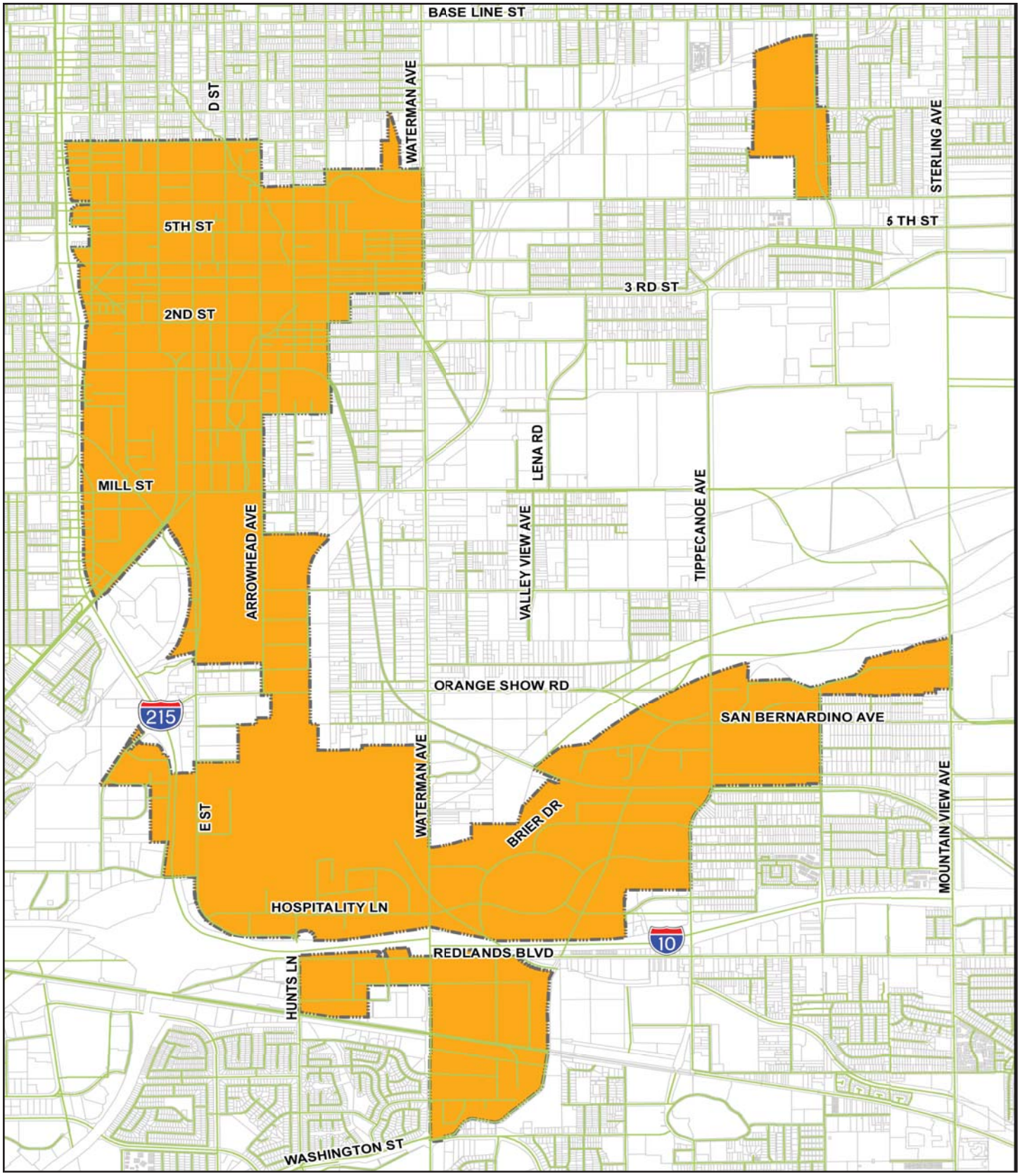
Table 3-2
Project Area Acreage

Redevelopment Project Area	Acreage Including Public Right-of-Way[1]
Central City North	278
Southeast Industrial Park	870
Tri-City	378
South Valle	289
Meadowbrook/Central City Projects	1,008
Central City East	
Central City South	
Total	2,823

Notes:
1. Acreage includes public right-of-way and may vary from acreage (exclusive of public right-of-way) reported in the Agency's Five Year Implementation Plan.

Table 3-3, *Proposed Merger and Amendment Actions*, summarizes the proposed merger and redevelopment plan amendments ("Merger and Amendments") under consideration by the Agency and the Mayor and Common Council . These actions include the following:

- Merge Project Area
- Tax Increment & Bonded Indebtedness Cap
- Capital Projects
- 10-Year Extension
- Single Merged, Amended and Restated Plan



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ENVIRONMENTAL IMPACT REPORT
SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS

Proposed Project Area

Exhibit 3-3

Table 3-3
Proposed Merger and Amendment Actions

Project Area	Type of Redevelopment Plan Action				
	Merge Project Areas	Tax Increment & Bonded Indebtedness Cap	Capital Projects	10-Year Extension	Single-Merged, Amended, and Restated Plan
Central City North	✓	✓	✓	✓	✓
Southeast Industrial Park	✓	✓	✓		✓
Tri-City	✓	✓	✓		✓
South Valle	✓	✓	✓		✓
Meadowbrook/Central City	✓	✓	✓	✓	✓
Central City East	✓	✓	✓		✓
Central City South	✓	✓	✓		✓

AMENDMENT TO INCREASE THE TAX INCREMENT AND BONDED DEBT LIMITATION

CRL Section 33354.6(a) sets forth that when a redevelopment agency proposes a redevelopment plan amendment to increase the limitation on the number of dollars to be allocated to the Project Area, or the amount of bonded debt that can be outstanding at any one time, the agency shall follow the same procedure, and the legislative body is subject to the same restrictions, as when adopting a new redevelopment plan.

Furthermore, *CRL* Section 33354.6(b) specifies that when an agency proposes such amendments, it shall describe and identify the following in the amendment documents: the remaining blight within the Project Area; the portions, if any, that are no longer blighted; the projects that are required to be completed to eradicate the remaining blight; and the relationship between the costs of those projects and the amount of increase in the limitation on the number of dollars to be allocated to the agency. The ordinance adopting such an amendment must contain findings that both (1) significant blight remains within the Project Area and (2) the blight cannot be eliminated without the establishment of additional debt and the increase in the limitation on the number of dollars to be allocated to the redevelopment agency.

The Agency is proposing single cumulative limits for both the tax increment limitation and the bonded indebtedness limitation for Merged Area A.

AMENDMENT TO ADD PUBLIC IMPROVEMENT PROJECTS TO MERGED PLAN

Under *CRL* Section 33354.6, the legislative body may amend a redevelopment plan to add significant capital improvement projects as determined by the redevelopment agency. To add such capital improvement projects, an agency must follow the same procedures as adopting a new redevelopment plan. The Agency is both amending the capital project lists for the

individual Project Areas into one merged list, as well as adding new capital projects for Merged Area A.

AMENDMENT TO EXTEND THE EFFECTIVENESS AND TERM TO RECEIVE TAX INCREMENT BY 10 YEARS

The Agency wishes to pursue the extension of the effectiveness of the Central City North and Meadowbrook/Central City Project Areas. These Project Areas will reach their effectiveness time limit in the near future. Once the effectiveness limit is reached, implementation activities (except for inclusionary housing) within the Project Areas must cease and funds can only be spent on administering debt associated with the Project Areas. Therefore, the Agency wishes to pursue the 10-year amendment to extend the effectiveness and time period to receive tax increment for these two Project Areas. This amendment will further the Agency's ability to financially support needed redevelopment projects and programs in Merged Area A.

The City's existing Housing Element (adopted July 2003) is currently being updated. A draft of the updated Housing Element has been submitted to the Department of Housing and Community Development (HCD) for their mandatory review for compliance with State law. Following HCD review and any updates to the draft Housing Element, the City will hold public hearings to adopt the Housing Element.

As such, the 10-year amendments as previously identified for the Central City North and Meadowbrook/Central City Project Areas will not be undertaken at this time, but would be subject to a subsequent amendment after the Housing Element is adopted by the City and certified by HCD.

Pursuant to *CRL* Section 33333.10, the Mayor and Common Council must make findings that significant blight remains in the two Project Areas that cannot be eliminated without extending the effectiveness of the redevelopment plan and the time limit to receive tax increment. The 10-year amendment would require the Agency to follow the same procedure required to adopt a new redevelopment project, and adhere to the additional requirements prescribed by the *CRL* to complete this particular type of amendment. Significant blight does not have to be prevalent throughout the two Project Areas, though tax increment may only be spent in areas where blighting conditions are identified or where non-blighted parcels are deemed necessary and essential. This requirement for spending tax increment generated in the Project Area in this restricted manner commences only after the original effectiveness limit has expired.

An important outcome of the 10-year amendment is the requirement that commencing the first fiscal year after the amendment is adopted, the Project Areas must deposit a total of 30% (a 10% increase) of the tax increment revenue received (from the Project Areas) into the Agency's Low and Moderate Income Housing Fund ("Housing Fund"). The requirement limiting where funds may be spent after the 10-year amendment does not include expenditures from the Housing Fund.

Additionally, the *CRL* contains a list of other requirements that must be met for the Agency to extend the effectiveness and tax increment time limitations for the Central City North and Meadowbrook/Central City Project Areas. The Mayor and Common Council must not only make the required findings of blight noted above, but prior to the Mayor and Common Council's

consideration of the amendment ordinance, the Agency must adopt a resolution that makes the following findings:

- The community has an adopted housing element certified by the State of California Department of Housing and Community Development;
- The Agency has not been in major violation of the State Controller's annual reporting for the past three fiscal years; and
- The Agency has written a request to and received a response from the State Department of Housing and Community Development stating that the Agency does not have an excess surplus in its Housing Fund.

PROJECT AREA MERGER

CRL Section 33485 states that "Mergers of project areas are desirable as a matter of public policy if they result in substantial benefit to the public and if they contribute to the revitalization of blighted areas through the increased economic vitality of those areas and through increased and improved housing opportunities in or near such areas." Furthermore, *CRL* Section 33486 states that project areas may be merged, without regard to contiguity of the areas, by the amendment of each affected redevelopment plan as provided in *CRL* Section 33450. Before adopting the ordinance amending each affected redevelopment plan, the Mayor and Common Council must find, based on substantial evidence, that both of the following conditions exist:

1. Significant blight remains within one of the project areas being merged.
2. This blight cannot be eliminated without merging the project areas and the receipt of property taxes.

3.6.3 PROJECTS AND PROGRAMS TO ELIMINATE BLIGHT[4]

This section provides a description of the projects or programs proposed to eliminate the remaining blight, how they will improve the conditions of blight, and the reasons why the projects or programs cannot be completed without the Merger and Amendments.

While the Agency has been effective in eliminating blight through public facilities and infrastructure improvements, site acquisition and clearance, and new construction and rehabilitation projects, significant blight remains prevalent throughout Merged Area A, as detailed in Section A of the *Preliminary Report*. The Agency will continue to carry out consistent projects and programs in Merged Area A, but seeks to augment its financial capacity to continue to implement a corridor-based approach to the elimination of blight. Rather than focusing on piecemealed projects within individual Project Areas, the Agency's focus is to address blighting conditions along key corridors in Merged Area A (e.g., Waterman Avenue, Baseline Street, Arrowhead Avenue, Hospitality Lane, Orange Show Road), and invest in the revitalization of the City's "Downtown Core." The Downtown Core is generally bound by 6th Street to the north, Waterman Avenue to the east, the I-215 Freeway to the west, and Rialto Avenue to the south.

[4] Source: *Preliminary Report, San Bernardino Merged Area A Merger & Amendments*; April 5, 2010; prepared by Rosenow Spevacek Group.

It encompasses the southern half of Central City North, almost all of Central City East and Meadowbrook/Central City, and a northern portion of Central City South.

DOWNTOWN CORE VISION/ACTION PLAN

The Downtown Core is currently home to local, regional, state, and federal government centers (e.g., City Hall, County administrative offices, Courthouse, IRS, Consulate General of Mexico), the San Bernardino Convention Center, an emerging Theater District, Carousel Mall, educational and workforce development centers, a public transportation hub, Seccombe Lake, affordable housing, and other new development projects. To cast a strategic vision for the revitalization of the Downtown Core, the City and Agency recently completed the Downtown Core Vision/Action Plan in summer 2009, which created a visual simulation of the Downtown Core's redevelopment potential. Key elements of the Downtown Core Vision/Action Plan include a new inter-governmental civic center complex, a courthouse building, a night-time entertainment Theater District with retail and restaurant uses, a transit village, Court Street Square, a Main Street retail corridor, a new hotel to complement the Convention Center, and new Seccombe Lake and Meadowbrook Park residential and mixed-use development projects.

The Downtown Core Vision/Action Plan casts a long-range revitalization strategy that will require significant public-private investment and redevelopment tax increment financing to assemble land for development, upgrade public infrastructure and utility systems to meet increased service demands, create new parks and public transportation systems to serve future residents and visitors, and build affordable housing to create a balanced community. The catalyst projects and accompanying infrastructure improvements envisioned by the Downtown Core Vision/Action Plan will eliminate blighting conditions by creating jobs, increasing income levels, assembling and redeveloping blighted properties, replacing aged infrastructure, addressing incompatible uses, increasing property values, remediating environmentally contaminated sites, reducing office and retail vacancies, creating needed commercial facilities, and addressing uses that contribute to the threat to the public health, safety, and welfare of residents in Merged Area A.

The proposed Merger and Amendments will allow the Agency to leverage and pool tax increment revenues from the affected Project Areas to implement the Downtown Core Vision/Action Plan for the benefit of the entire Merged Area A. New tax increment revenues generated from increased property values resulting from property revitalization can be invested toward additional public improvements in the Downtown Core and other parts of Merged Area A. The Agency estimates $75 million in project costs for implementation of the Downtown Core Vision/Action Plan through the life of the Merged Plan. The proposed 10-year extensions of the Central City North and Meadowbrook/Central City Project Areas are needed to: (1) allow sufficient time for the Agency to implement the long-range objectives of the Downtown Core Vision/Action Plan in those Project Areas, particularly given the current temperature of the real estate market; and (2) create sufficient financing capacity in those Project Areas as redevelopment proceeds to finance public facilities and infrastructure upgrades and facilitate key catalytic development projects. The proposed increases in the Agency's limitations on tax increment collection and bonded indebtedness will ensure that the Agency has sufficient financing capacity to fund redevelopment activities throughout Merged Area A, including the Downtown Core.

Given the current economic climate and troubling trends in the real estate market, implementation of major programs like the Downtown Core Vision/Action Plan cannot reasonably be expected to occur either by private enterprise or governmental action alone, but only by leveraging the unique redevelopment powers and financing capabilities of the Agency to create public-private enterprise activities. This is especially true now as the City struggles to address its own general fund budgetary gap. With little to no new revenue streams available to implement the Downtown Core Vision/Action Plan, the City will rely heavily on the Agency to secure funding for next steps under the Plan. With increased financial responsibility to carry out major projects and programs in Merged Area A, the proposed Merger and Amendments is necessary to ensure the Agency has adequate financial capacity and tools to see these revitalization activities through to successful completion.

PROJECTS AND PROGRAMS

In addition to Downtown Core revitalization, the Agency proposes to eliminate blight throughout Merged Area A through the implementation of the following projects and programs along key corridors and at prime opportunity sites. The projects and programs are taken from Exhibit C, Project List, in the *Merged, Amended and Restated Redevelopment Plan for San Bernardino Merged Redevelopment Project Area A, and ones that may be undertaken by the Agency.* These projects and programs are not listed in order of priority and may change from time to time. In addition, the following projects and programs reflect the proposed capital improvements projects that are required to be identified in the Merged Plan.

Public Facilities and Infrastructure Improvements

These projects and programs involve the replacement and upgrading of public facilities and infrastructure to support existing uses and new development. Redevelopment activities include circulation upgrades and street improvements, parks and recreation/community centers, public safety improvements, infrastructure assessments/plans, utility improvements (e.g., sewer main replacement/relocation, high groundwater table/liquefaction mitigation), flood control, bikeways and trails, and noise attenuation. The Agency estimates $50 million in project costs for public facilities and infrastructure improvements through the life of the Merged Plan.

Environmental Conservation

These projects and programs seek to increase the long-term viability, relevance, and cost-effectiveness of existing and future buildings in Merged Area A. Redevelopment activities include solar and geothermal building retrofits, research and development, and studies and plans. The Agency estimates $10 million in project costs for environmental conversation programs through the life of the Merged Plan.

Environmental Remediation and Brownfields Revitalization

These projects and programs seek to mitigate environmental threats to public health and safety, and transform contaminated, underutilized properties, otherwise known as “brownfields,” into productive assets of the community. In 2008, the Agency was selected to receive two separate grants from US EPA for Communitywide Brownfields Assessments to inventory brownfield sites and conduct Phase I and Phase II Environmental Site Assessments on priority sites with high revitalization potential. These grants can ideally be used by redevelopment agencies as “seed

money" to create comprehensive, proactive brownfield revitalization programs. The Agency also possesses unique powers under the Polanco Redevelopment Act (CRL Sections 33459-33459.8) to transfer and mitigate legal and financial liabilities that would otherwise deter a property owner or developer from seeking to better utilize brownfield sites. Redevelopment activities under this project/program, include community outreach, grant funding, and implementation of the sbX Bus Rapid Transit Project, an interagency effort with Omnitrans, the regional transportation authority, to implement a bus rapid transit system that would traverse and interconnect 15.7 miles of the City, many portions of which include right-of-ways containing environmental pollutants regulated by federal and state oversight agencies. The Agency estimates $3 million in project costs for environmental remediation and brownfields revitalization through the life of the Merged Plan.

Land Use Planning to Guide Redevelopment

These projects and programs involve updates to land use goals, plans, and policies needed to effectively implement the Agency's redevelopment activities. For example, while the Downtown Core Vision/Action Plan provides a visual simulation of the City's Downtown revitalization goals, it does not update the City's existing General Plan designations or zoning to set forth new development standards and design guidelines necessary to implement the vision. Preparation of a Downtown Core Specific Plan or Overlay would provide the needed updates. Land use plans also provide the framework for planning and financing infrastructure upgrades that will support new development. The Agency estimates $2 million in project costs for land use planning through the life of the Merged Plan.

Public Transit

These projects and programs seek to increase public transit systems through Merged Area A. Most notably, a key priority for the Agency will be the ongoing collaboration with Omnitrans to implement the sbX Bus Rapid Transit Project. Redevelopment activities include sbX line right-of-way improvements, sbX stops, transit stations, and transit-oriented development projects. The Agency estimates $15 million in project costs for public transit through the life of the Merged Plan.

Infill Development Projects and Affordable Housing

These projects and programs involve site clearance, land assembly, and development of infill projects in Merged Area A, including affordable housing. Redevelopment activities include property acquisition, studies and plans, and public facilities and infrastructure improvements to support infill projects. The Agency estimates $75 million in project costs for infill development and affordable housing through the life of the Merged Plan.

Economic Development Activities

These projects and programs seek to complement the Agency's goals for urban revitalization by supporting economic development activities to expand and attract businesses to Merged Area A, and provide small business assistance and development. Redevelopment activities include façade improvement programs, business outreach, Enterprise Zone administration, and efforts to augment benefits provided through the Small Business Administration 7(a) Loan Program. The Agency estimates $20 million in project costs for economic development activities through the life of the Merged Plan.

3.6.4 PROJECT AREA REDEVELOPMENT POTENTIAL

As part of the redevelopment process it is anticipated that additional development will occur within this part of the City. Existing development within the Project Area includes commercial (hospitality, general and regional commercial, auto-oriented commercial, and service commercial uses), industrial (distribution, manufacturing, warehousing) school/civic/institutional, residential (single- and multi-family), and public facilities uses. In addition, a significant portion of the Project Area is undeveloped (approximately 460 acres), including vacant developable land and areas along the Santa Ana River reserved for flood control purposes. Of the approximately 460 acres identified as vacant, it is estimated that approximately 265 acres of land is considered developable due to lack of constraints (i.e. designated as open space, located within a 100-year floodplain, undevelopable due to a physical condition).

Redevelopment of these properties, excluding those areas that have development constraints, is anticipated to occur, which would increase demand for public services and utility connections/services within this part of the City. At this time, all development will remain consistent with the existing General Plan land use and Zoning designations within the Project Area. Therefore, the proposed project will be consistent with the City's General Plan goals and policies upon implementation. *Table 3-4*, *Redevelopment Potential Within Project Area*, identifies the amount of potential commercial, industrial, and residential development that could occur subsequent to the adoption of the proposed project. This development potential was calculated in two ways: 1) vacant land and 2) specific redevelopment projects.

VACANT LAND ANALYSIS

Based on the vacant parcels identified in the *Preliminary Report* prepared by RSG (January 2010), RBF identified the vacant parcels that were considered undevelopable due to a physical (located within a floodplain) or regulatory (zoned for open space) constraint. Once all vacant developable parcels were identified, RBF confirmed the identified General Plan land use and zoning designations for these parcels with City Staff, which provided a basis to assess the development potential within each property. This analysis determined the following development potentials could be developed on the 265 acres of vacant land within the Project Area:

- Approximately 3.22 million square feet of commercial and office uses[5]
- Over 500,000 square feet of industrial uses
- 788 multi-family residential units

A detailed table identifying the development potential for each of the seven redevelopment areas within the Project Area is provided in Appendix G, Vacant Land Development Potential.

IDENTIFIED NEAR-TERM REDEVELOPMENT PROJECTS

Based on current discussions with potential developers and property owners within the Project Area, preparation/recent adoption of plans/projects within the Project Area, and the Agency's goals/plans for eliminating blight and expanding jobs/housing opportunities throughout this part

[5] Includes development potential for commercial retail and office uses along or near Hospitality Lane within the Tri-City and Southeast Industrial Park Project Areas.

of the City, EDA staff has identified several redevelopment projects likely to develop within the foreseeable future. These projects are listed in *Table 3-5*, *Identified Near-Term Redevelopment Projects*. In addition to the redevelopment of the vacant parcels within the Project Area, the development potential of identified redevelopment projects within the Project Area is:

- 667,000 square feet of retail/general commercial use
- 1.49 million square feet of commercial office use
- 300,000 square feet of commercial lodging uses
- 355 multi-family residential units

As indicated in *Table 3-5*, some of the projects are associated with larger projects that are currently being designed, planned, and/ or constructed within the Project Area or vicinity.

Table 3-4
Redevelopment Potential Within Project Area

Development Potential	Commercial			Industrial	Residential	Notes
	Retail/ General	Office	Lodging			
Vacant Land Analysis						
Vacant Land Analysis[1]	2,309,894 SF	909,780 SF		518,916 SF	788 DU	
Identified Redevelopment Projects						
Carousel Mall Redevelopment Project	377,000 SF	800,000 SF	300,000 SF		750 DU	
Heritage Square	30,000 SF					
Redevelopment of Former Military Facilities at 3rd & Waterman	90,000 SF					
Seccombe Lake Village	50,000 SF				125 DU	
Arrowhead Credit Union Headquarters Campus	25,000 SF	190,000 SF				Accommodate 1000+ employees (225 new)
Theater District Implementation	25,000 SF					
Intermodal Station and Transit-Oriented Development	75,000 SF	500,000 SF			170 DU	
TOTAL	**2,981,894 SF**	**2,399,780 SF**	**300,000 SF**	**518,916 SF**	**1,833 DU**	

Notes:
1. Includes development potential for commercial retail and office uses along or near Hospitality Lane within the Tri-City and Southeast Industrial Park Project Areas.

SF = square feet; DU = dwelling unit

In total, the redevelopment potential within the Project Area is:

- 5,681,674 square feet of commercial (retail, general, office, lodging) uses
- 518,916 square feet of industrial uses
- 1,833 multi-family residential units

Table 3-5
Identified Near-Term Redevelopment Projects

Activity Description	Project Area(s)
Carousel Mall Redevelopment Project: Investigate possible new uses at Carousel Mall as identified in the Downtown Core Vision/Action Plan, including a potential new government center and urban retail and housing uses to complement existing retail.	Central City Projects
Heritage Square: Develop Court Street as the "Heritage Square" District as identified by the Downtown Core Vision/Action Plan.	Central City North
Redevelopment of Former Military Facilities: Enter into an agreement with a developer for demolition/site clearance of former military facilities at Third Street and Waterman Avenue for neighborhood-supporting retail uses.	Central City Projects
Seccombe Lake Village: Development of 12.5 acres of land into mixed use development of high and low density residential and retail on the northeast corner of Sierra Avenue and 5th Street.	Central City Projects
Arrowhead Credit Union Headquarters Campus: Continue to work with Arrowhead Credit Union for relocation of corporate facilities. Arrowhead Credit Union has acquired undeveloped and dilapidated properties to the west of the above site to provide additional space for a third building for the Arrowhead Central Credit Union Corporate headquarters campus site.	Central City Projects
Theater District Implementation: Studies, improvements, and implementation activities to create a Downtown Theater District and development of retail/restaurant pads.	Central City North
sbX Implementation: Facilitate implementation of the sbX Bus Rapid Transit Project in the Downtown Core, including transit-oriented development and brownfields assessment/ remediation. **Intermodal Transit Station:** Design and construction of an Intermodal Transit Station located at the Southwest corner of Rialto and E Street on a vacant 4.5-acre parcel to replace current bus transit mall along 4th Street. **sbX Transit-Oriented Development:** Study and enter into development agreements for transit-oriented development projects along the sbX line.	Central City North/ Central City Projects/ ALL

3.7 ASSUMPTIONS FOR ENVIRONMENTAL ANALYSIS

As noted in Section 2.0, Introduction, a Program EIR has been prepared for the proposed project, described above in Section 3.6, Project Characteristics. As such, this Program EIR has reviewed the overall development potential for both vacant land and identified near-term redevelopment projects; however, site-specific impacts with the near-term redevelopment projects or specific capital improvement projects have not been reviewed.

Subsequent individual development projects and/or capital improvement projects proposed within the City will be reviewed in the context of this Program EIR and the General Plan EIR to determine if additional environmental documentation is required. If the subsequent project would have site-specific environmental effects not addressed in the Program EIR and/or General Plan EIR, additional environmental review will be required. Where no new effects and no new mitigation measures are involved, the subsequent project can be approved without additional environmental documentation. Where an EIR or Mitigated Negative Declaration (MND) is required for a subsequent project, the EIR or MND should implement the applicable mitigation measures developed in the Program EIR, and focus its analysis on site-specific issues not previously addressed.

3.8 PHASING

Individual improvement and redevelopment projects would occur in incremental phases over time, based largely on economic considerations, financial feasibility, infrastructure improvements, market demand, and other planning considerations. The phasing and exact details of each project would be evaluated by the Agency on a case-by-case basis.

3.9 AGREEMENTS, PERMITS, AND APPROVALS

Following a determination that the Final EIR is adequate and certification of the Final EIR by the Community Development Commission, a Notice of Determination (NOD) would be issued by the Agency. In addition, adoption of the proposed San Bernardino Merged Area A Merger & Amendments would be the responsibility of the Mayor and Common Council. Redevelopment projects, to the extent not already analyzed in accordance with the proposed project, could be subject to additional environmental review on an individual basis, in accordance with the provisions of *CEQA Guidelines* Section 15168, as determined by the Agency.

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SECTION 4.0
BASIS OF CUMULATIVE ANALYSIS

4.0 BASIS OF CUMULATIVE ANALYSIS

4.1 INTRODUCTION

CEQA Guidelines Section 15355 defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts . . ." The following elements are necessary in an adequate discussion of cumulative impacts, as noted in *CEQA Guidelines* Sections 15130(b) through 15130(e).

(b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other project contribute rather than the attributes of other projects which do not contribute to the cumulative impact. The following elements are necessary to an adequate discussion of significant cumulative impacts:

1. *Either:*

    a. *A list of past, present and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or*

    b. *A summary of projections contained in an adopted General Plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or areawide conditions contributing to the cumulative impact.*

2. *When utilizing a list, as suggested in paragraph (1) of subdivision (b), factors to consider when determining whether to include a related project should include the nature of each environmental resources being examined, the location of the project and its type. Location may be important, for example, when water quality impacts are at issue since projects outside the watershed would probably not contribute to a cumulative effect. Project type may be important, for example, when the impact is specialized, such as a particular air pollutant or mode of traffic.*

3. *Lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used.*

4. *A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and*

5. *A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.*

(c) *With some projects, the only feasible mitigation for cumulative impacts may involve the adoption of ordinances or regulations rather than the imposition of conditions on a project-by-project basis.*

(d) *Previously approved land use documents such as general plans, specific plans, and local coastal plans may be used in cumulative impact analysis. A pertinent discussion of cumulative impacts contained in one or more previously certified EIRs may be incorporated by reference pursuant to the provisions for tiering and program EIRs. No further cumulative impact analysis is required when a project is consistent with a general, specific, master or comparable programmatic plan where the lead agency determines that the regional or areawide cumulative impacts of the proposed project have already been adequately addressed, as defined in Section 15152(f), in a certified EIR for that plan.*

(e) *If a cumulative impact was adequately addressed in a prior EIR for a community plan, zoning action, or general plan, and the project is consistent with that plan or action, then an EIR for such a project should not further analyze that cumulative impact, as provided by Section 15183(j).*

4.2 CUMULATIVE ANALYSIS IN THIS EIR

Cumulative impacts may be discussed in terms of buildout of the San Bernardino General Plan, in combination with impacts anticipated for future development (including approved and planned development within the Merged Area and surrounding affected area), or impacts associated with growth within the region. The geographic area for each impact varies, depending on the nature of the impact, whether it is regional, such as air quality, or local, such as noise.

Quantification can be difficult for cumulative impacts, as it requires speculative estimates of impacts including, but not limited to the following: the geographic diversity of impacts (impacts of future development may affect different areas); variations in time of impacts; and changes in data for buildout projections following subsequent approvals. However, every attempt has been made herein to make sound qualitative judgments of the combined effects of, and relationship between, land uses and potential impacts.

In compliance with *CEQA Guidelines* Section 15130(1)(d), this section of the EIR describes the environmental effects of the proposed project in combination with the effects of City buildout, as forecasted in the San Bernardino General Plan.

The City of San Bernardino General Plan buildout to the maximum levels is not anticipated to occur and was not used as a basis for buildout projections. Assuming average buildout levels, the General Plan accommodates a total of 95,664 total units, which includes 82,714 dwelling units in the incorporated City and 12,950 dwelling units in the City's sphere of influence. Based on a factor of 3.340 persons per household, the projected population at buildout for the entire planning area would be approximately 319,241 people, which includes 276,264 persons in the City and 42,976 persons in the City's sphere of influence (SOI). Assuming the vacancy factor of 11.3 percent from the 2000 Census, there could be 84,854 households in the existing City limits at buildout.[1]

[1] Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report, prepared by The Planning Center, dated September 30, 2005.

Within the total planning area, the General Plan land use plan provides for a total of 3,995 acres of commercial and office uses, including 257 acres of mixed use development, and 6,065 acres of general and light industrial uses. At buildout using the adjusted intensity factors (FARs), the land use plan could generate 355,629 jobs in the total planning area and 338,712 jobs in the existing jurisdictional boundaries.[2]

The buildout projects for population, households, and employment for the City are greater than those projected by SCAG to occur in the year 2025; refer to *Table 4-1*, *Comparison of SCAG 2025 and General Plan Buildout Projections*.

Table 4-1
Comparison of SCAG 2025 and General Plan Buildout Projections

	SCAG Projections for City of San Bernardino		Proposed General Plan Buildout Projections	
	2000	2025	City Only	City + Sphere
Population	185,772	212,404	276,264	319,241
Household	56,341	64,440	73,367	84,854
Employment	81,115	131,943	338,712	355,629
Jobs-to-household Ratio	1.44	2.05	4.62	4.19

Sources: *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, Section 5.11 Population and Housing, Table 5.11-3, Page 5.11-5, prepared by The Planning Center, dated September 30, 2005.

In order to make a comparison of General Plan buildout to existing employment conditions, the 2000 employment figures from SCAG were used. The number of jobs projected at buildout of the General Plan is significantly higher at buildout than was assumed by SCAG in the year 2000; refer to *Table 4-1*. The closure of Norton Air Force Base in 1994 can be attributed to this by the loss of thousands of jobs. The buildout of the General Plan assumes reuse of the airport. The jobs-to-household ratio is also substantially higher at buildout than is projected by SCAG to occur in the year 2025; refer to *Table 4-1*. This is not a direct comparison as buildout is not linked to a timeline but instead represents ultimate development of the City. By achieving a very jobs-rich 4.19 jobs-to-household ratio, the General Plan benefits the overall County and subregional jobs-to-housing balance. This reflects the desire to continue to be a center of employment and build upon the existing concentration of government offices, higher educational institutions, and improve the airport and surrounding area. Given that employees will not necessarily live and work within the area, the concentration of jobs in the City will help more workers in the area live and work within the County and subregion, which will help address the minor imbalance at the county and subregional levels.[3]

The San Bernardino Merged Area A Merger and Amendments proposes to merge seven of the San Bernardino Economic Development Agency's (EDA) existing redevelopment project areas into one are encompassing a total of 2,823 acres. The proposed project would result in the addition of 1,833 dwelling units and 6,200,590 square feet of non-residential development. The residents within the Project Area receive public services from the public agencies discussed in Section 5.12 through Section 5.19.

[2] Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report, prepared by The Planning Center, dated September 30, 2005.
[3] Ibid.

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SECTION 5.0
ENVIRONMENTAL ANALYSIS

5.0 ENVIRONMENTAL ANALYSIS

The next subsections of the EIR contain a detailed environmental analysis of the existing conditions, project impacts (including direct and indirect, short-term and long-term, and cumulative), recommended mitigation measures, and unavoidable adverse impacts. This EIR analyzes those environmental issue areas as stated in the Notice of Preparation and Initial Study Checklist (Appendix A, Initial Study Checklist/Notice of Preparation) where potentially significant impacts have the potential to occur.

The EIR will examine the following environmental factors outlined in the *CEQA Guidelines* Appendix G, Environmental Checklist:

5.1 Land Use
5.2 Population and Housing
5.3 Aesthetics
5.4 Traffic
5.5 Air Quality/Greenhouse Gas
5.6 Noise
5.7 Biological Resources
5.8 Cultural Resources
5.9 Geology and Seismic Hazards
5.10 Hazards/Risk of Upset
5.11 Hydrology and Water Quality
5.12 Fire Protection
5.13 Police Protection
5.14 School Facilities
5.15 Parks and Recreational Facilities
5.16 Water
5.17 Wastewater
5.18 Solid Waste
5.19 Electricity and Natural Gas

Each environmental issue is addressed in a separate section of the EIR, and is organized into seven sections, as follows:

"Regulatory Setting" describes the federal, state, regional, or local regulations and plans that are applicable.

"Environmental Setting" describes the physical conditions that exist at this time and that may influence or affect the issue under investigation.

"Significance Threshold Criteria" provides the thresholds that are the basis of conclusions of significance, which are primarily the criteria in the *CEQA Guidelines* Appendix G, Environmental Checklist.

Major sources used in crafting criteria include the *CEQA Guidelines*; local, state, federal, or other standards applicable to an impact category; and officially established significance thresholds. *". . . An ironclad definition of significant effect is not possible because the significance of any activity may vary with the setting."* (*CEQA Guidelines* Section 15064[b]). Principally, *". . . a substantial, or potentially substantial adverse change in any of the physical conditions within an area affected by the project, including land, air, water, flora, fauna, ambient noise, and objects of historic and aesthetic significance"* constitutes a significant impact (*CEQA Guidelines* Section 15382).

"Impacts and Mitigation Measures" evaluates the project's environmental impacts in consideration of all phases, including planning, acquisition, development, and operation. This subsection also discusses the potential changes to the existing physical environmental conditions, which may occur if the proposed project is implemented. Evidence, based on factual and scientific data, is presented to show the cause and affect relationship between the proposed project and the potential changes in the environment. All of the potential direct and reasonably foreseeable indirect effects are considered. The exact magnitude, duration, extent, frequency, range, or other parameters are ascertained, to the extent possible, to determine their significance.

The proposed project's environmental effects are categorized as either "effects found not to be significant" or "potentially significant impact". The effects found not be significant category provides a brief discussion of the reasons that various possible significant effects of the project were found not to be significant. The potentially significant category identifies and focuses on the significant environmental effects of the proposed project. Direct and indirect significant effects of the project on the environment are clearly identified and described, giving due consideration to both the short-term and long-term effects.

"Mitigation Measures" are project-specific measures that would be required of the project to avoid a significant adverse impact; to minimize a significant adverse impact; to rectify a significant adverse impact by restoration; to reduce or eliminate a significant adverse impact over time by preservation and maintenance operations; or to compensate for the impact by replacing or providing substitute resources or environment.

The "Level of Significance" presents the significance determination. This statement identifies which impacts would remain after the application of mitigation measures and whether the remaining impacts are or are not considered significant. When impacts, even with the inclusion of mitigation measures, cannot be mitigated to a level considered less than significant, they are identified as "significant unavoidable impacts."

"Cumulative Impacts and Mitigation Measures" describes potential environmental changes to the existing physical conditions that may occur as a result of the proposed project together with all other reasonably foreseeable, planned and approved future projects producing related or cumulative impacts, as set forth in Section 4.0. A cumulative impact analysis is provided only for those thresholds that result in a less than significant, potentially significant, or significant unavoidable impact. A cumulative impact analysis is not provided for Effects Found Not to be Significant, which result in no project-related impacts.

"Significant Unavoidable Impacts" describes impacts that would be significant and cannot be feasibly mitigated to less than significant, so would therefore be unavoidable. To approve a project with significant unavoidable impacts, the lead agency must adopt a Statement of Overriding Considerations. In adopting such a statement, the lead agency is required to balance the benefits of a project against its unavoidable environmental impacts in determining whether to approve the project. If the benefits of a project are found to outweigh the unavoidable adverse environmental effects, the adverse effects may be considered "acceptable" (*CEQA Guidelines* Section 15093[a]).

"Sources Cited" lists all documents, reference materials, or other information utilized, such as websites, in the section.

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SECTION 5.1
LAND USE

5.1 LAND USE

Land use refers to the use of land for various activities, such as commerce, industry, recreation, and residences. Land use patterns influence the character and function of a community and, therefore, land use planning is a fundamental component of a city's General Plan. The Land Use Element of a General Plan identifies a land use plan and sets forth policies for the permitted types, intensities, and location of land uses in the city.

This section identifies existing land use conditions within the Project Area, describes the amount of growth permitted currently and under the proposed project, analyzes the proposed project compatibility with existing land uses and consistency with relevant planning policies, and recommends mitigation measures to avoid or lessen the significance of potential impacts. Information in this section is based upon the *City of San Bernardino General Plan* (*General Plan*) and the *Development Code.*

5.1.1 REGULATORY SETTING

STATE OF CALIFORNIA

Redevelopment Law

The *California Community Redevelopment Law* (*CRL*) authorizes cities and counties to adopt and amend redevelopment plans intended to revitalize and rehabilitate blighted areas. Redevelopment plans provide a means for redevelopment agencies to encourage private reinvestment in blighted areas through provision of various forms of assistance. Redevelopment is intended to eliminate deficiencies and cause the comprehensive planning, redesign, and reconstruction of specific areas to facilitate a higher and better utilization of land. Redevelopment is also intended to increase construction activities and employment opportunities; provide economic stimulation through commercial growth and expansion; and to increase, improve, and preserve the City's affordable housing stock and thereby make affordable housing available to persons of very low, low, and moderate income.

REGIONAL PLANS AND POLICIES

In addition to locally adopted plans, ordinances, and regulations, a number of regional plans also influence land use planning in the City of San Bernardino. Regional plans and policies created by planning agencies such as the Southern California Association of Governments (SCAG) and the South Coast Air Quality Management District (SCAQMD) are discussed below.

SCAG Regional Comprehensive Plan and Guide

Regional planning agencies such as SCAG recognize that planning issues extend beyond the boundaries of individual cities. Efforts to address regional planning issues such as affordable housing, transportation, and air pollution have resulted in the adoption of regional plans that affect the City and County of San Bernardino.

SCAG has evolved as the largest council of governments in the United States, functioning as the Metropolitan Planning Organization for six counties (Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial) and including 189 cities. The region encompasses a population exceeding 19 million residents in an area of more than 38,000 square miles.

As the designated Metropolitan Planning Organization, the Federal government mandates SCAG to research and draw up plans for transportation, growth management, hazardous waste management, and air quality. These mandates led SCAG to prepare comprehensive regional plans to address these concerns.

SCAG is responsible for the maintenance of a continuous, comprehensive, and coordinated planning process resulting in a Regional Transportation Plan (RTP) and a Regional Transportation Improvement Program (RTIP). SCAG is also responsible for the development of demographic projections, and is also responsible for development of the integrated land use, housing, employment, transportation programs, measures, and strategies portions of the South Coast Air Quality Management Plan (AQMP).

Regional Transportation Plan (2008 RTP)

The 2008 Regional Transportation Plan (RTP) presents the transportation vision for the SCAG region through the year 2035 and provides a long-term investment framework for addressing the region's transportation and related challenges. The RTP provides an assessment of the overall growth and economic trends in the SCAG region through 2035. The RTP is the culmination of a multi-year effort focusing on maintaining and improving the transportation system through a balanced approach that considers system preservation, system operation and management, improved coordination between land use decisions and transportation investments, and strategic expansion of the system to accommodate future growth.

SCAG Compass Blueprint Growth Visioning Program

In an effort to maintain the region's prosperity, continue to expand its economy, house its residents affordably, and protect its environmental setting as a whole, SCAG has brought together the goals and ideas of interdependent sub-regions, counties, cities, communities, and neighborhoods. This process is called Southern California Compass Blueprint, and the result is a shared "Growth Vision" for Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG began Compass Blueprint in 2002, spearheaded by the Growth Visioning Subcommittee, which consisted of civic leaders throughout the region. Creating a shared regional vision is an effective way to begin addressing issues such as congestion and housing availability that may threaten the region's livability.

In the short-term, SCAG's growth visioning process has found common ground in a preferred vision for growth and has incorporated it into immediate housing allocation and transportation planning decisions. In the long term, the Growth Vision is a framework that will help local jurisdictions address growth management cooperatively and will help coordinate regional land use and transportation planning. The result of this growth visioning effort is SCAG's Growth Vision Report (GVR).

The Growth Vision Report presents the comprehensive Growth Vision for the six-county SCAG region, as well as the achievements of the Compass Blueprint process. It details the evolution of the draft vision, from the study of emerging growth trends to the effects of different growth patterns on transportation systems, land consumption, and other factors. The Growth Vision Report concludes with a series of implementation steps including tools for each guiding principle and overarching implementation strategy.

Areawide Clearinghouse

SCAG serves as an areawide clearinghouse for regionally significant projects, and, as the clearinghouse, reviews projects for their consistency with regional plans. This is based upon SCAG's responsibilities as a regional planning organization pursuant to Federal and State laws and regulations. The proposed project does not qualify as regionally significant per the SCAG Intergovernmental Review Criteria and *CEQA Guidelines* Section 15206.

LOCAL PLANS AND POLICIES

City of San Bernardino General Plan

The *City of San Bernardino General Plan* provides comprehensive planning for the future of the City. The *General Plan* is currently comprised of the following mandatory and optional elements:

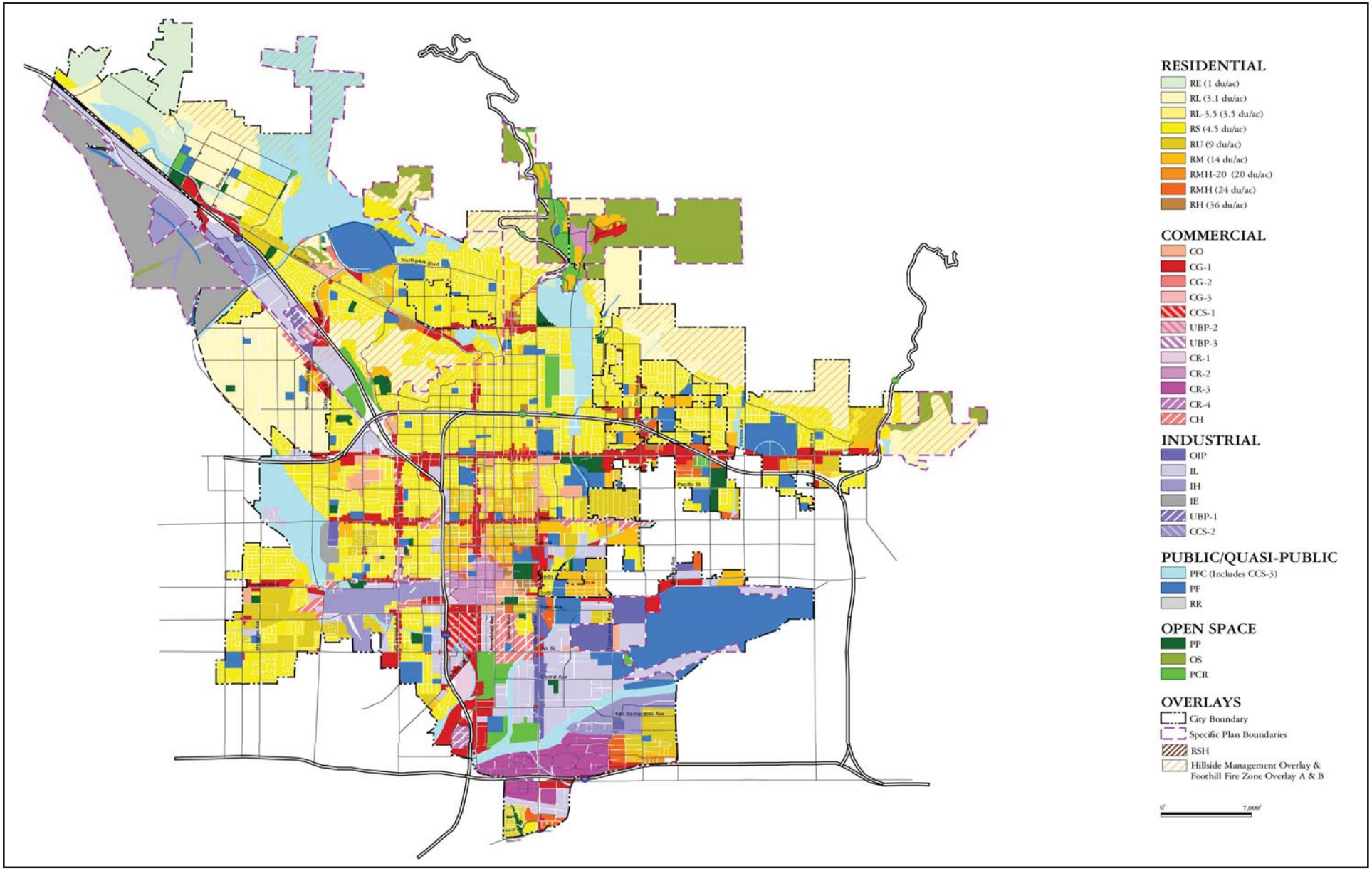
- Land Use;
- Housing;
- Economic Development;
- Community Design;
- Circulation;
- Public Facilities and Services;
- Parks, Recreation, and Trails;
- Utilities;
- Safety;
- Historical and Archaeological Resources;
- Natural Resources and Conservation;
- Energy and Water Conservation; and,
- Noise.

Land Use Element

The *General Plan* Land Use Element addresses the physical development pattern of the City, including general site development standards and the distribution, location and extent of land uses, such as housing, business, industry, open space, natural resources, recreation, and public/quasi-public uses. This Element also designates the standards for residential density and non-residential intensity for the various land use designations. *Exhibit 5.1-1*, *General Plan Land Use Diagram*, depicts the existing *General Plan* land uses permitted within the City.

Community Design Element

The Community Design Element is an optional part of the *General Plan*. However, the City, in an effort to recognize the importance of community appearance and design to its vitality and future, seeks to unify the City through carefully crafted design policies.



SOURCE: City of San Bernardino General Plan, November 1, 2005.

ENVIRONMENTAL IMPACT REPORT
SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS

General Plan Land Use Diagram

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Exhibit 5.1-1

City of San Bernardino Development Code

Zoning is the means by which cities implement their General Plan and is required to be consistent with a city's General Plan. A Zoning Code translates the long-term goals and policies of a General Plan into the guidelines used for decision-making on future developments. While the General Plan provides long-range and broad categories of land use, zoning provides specific development requirements, such as density, height, size, and development character. Similar to the General Plan, a zoning map accompanies the ordinance, which is primarily text, to define the boundaries of each zoning district.

The purpose of the City of San Bernardino's *Development Code* (*Title 19* of the *City of San Bernardino Municipal Code*) is to promote the public health, safety, general welfare and preserve and enhance the aesthetic quality of the City by providing regulations to ensure an appropriate mix of land uses in an orderly manner.

The City's *Development Code* establishes several zoning categories in order to classify, regulate, restrict, and segregate the uses of lands and buildings, to regulate and restrict the height and bulk of buildings, to regulate the area of yards and other open spaces around buildings and to regulate the density of population. For each zoning category, permitted land uses are identified, as well as development standards including setbacks, building heights, and lot coverage. The Code also presents design guidelines according to zoning category.

Redevelopment

The first redevelopment Project Area within the City was adopted in 1958 – Meadowbrook Project Area. Since 1958, many of the City's redevelopment Project Areas have been amended to adapt to the changing needs of the City.

The proposed project involves various redevelopment plan amendments and the merger of seven of the Agency's Redevelopment Project Areas, which include:

- Central City North (adopted August 6, 1973)
- Southeast Industrial Park (adopted June 21, 1976)
- Tri-City (adopted June 20, 1983)
- South Valle (adopted July 9, 1984)
- Meadowbrook/Central City (adopted July 21, 1958/ February 23, 1965)
- Central City East (adopted May 3, 1976)
- Central City South (adopted May 3, 1976)

These Project Areas are described in detail in *Section 3.0*, *Project Description*.

Five Year Implementation Plan

To implement the redevelopment goals of the Redevelopment Agency, the Redevelopment Strategic Plan establishes strategic objectives, regional-focused strategies, and a five-year action plan of projects and programs, which are stated in the Five Year Implementation Plan. The most recently adopted Implementation Plan is for fiscal years 2009-10 through 2013-2014.

CAPITAL IMPROVEMENT PROGRAM

The City of San Bernardino prepares a Capital Improvements Program, which serves as the main planning and budgeting framework for key projects proposed by the City. This Program identifies projects for public works and infrastructure installation, maintenance and repair, parks and recreation services, and miscellaneous support services. The Program is required to conform to the policy direction provided in the *General Plan*.

SAN BERNARDINO INTERNATIONAL AIRPORT AND TRADE CENTER

The San Bernardino International Airport and Trade Center (SBIA) is located in the southeastern edge of the City and represents one of the greatest economic growth opportunities for the City of San Bernardino. The SBIA includes two distinct components: 1) the airport portions (and related facilities) of the former Norton Air Force Base, and 2) the Trade Center, which encompasses the non-airport related portions of the former base.

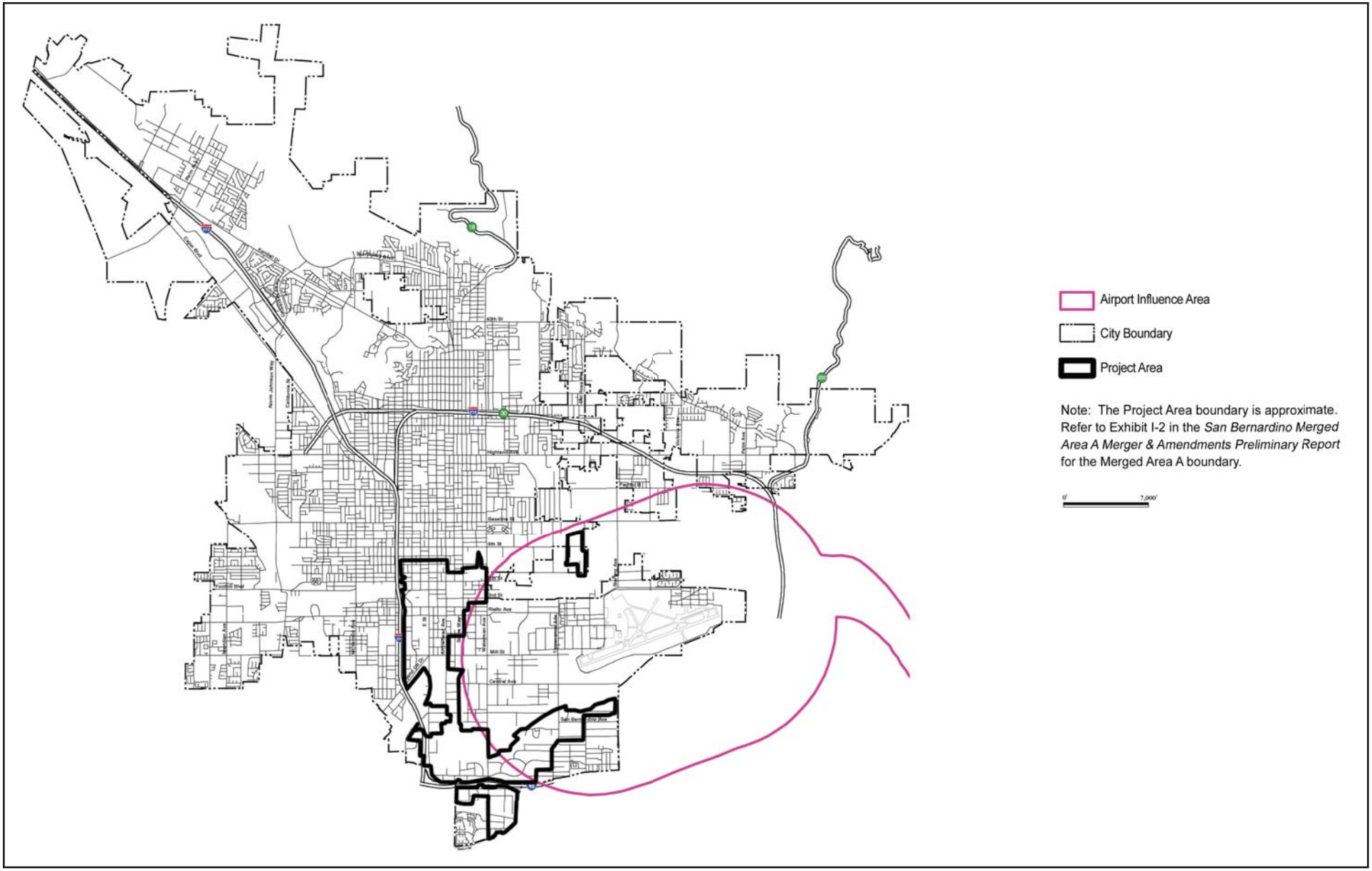
The airport related areas contain approximately 1,350 acres that are managed by the San Bernardino International Airport Authority (SBIAA), which is a Joint Powers Authority made up of representatives from the cities of San Bernardino, Highland, Loma Linda, Colton, and the County of San Bernardino. The Trade Center is composed of two non-contiguous areas of the former Norton Air Force Base totaling approximately 652 acres. The Trade Center is managed by the Inland Valley Development Agency (IVDA), which is a Joint Powers Authority made up of representatives from the cities of San Bernardino, Loma Linda, Colton, and the County of San Bernardino. The Trade Center is addressed in the San Bernardino International Trade Center Specific Plan.

The State Aeronautics Act of the California Public Utilities Code establishes statewide requirements for the conduct of airport land use compatibility planning and requires every county to create an Airport Land Use Commission (ALUC) or other alternative. San Bernardino County opted for an alternative to the ALUC and delegated responsibility to prepare an Airport Land Use Compatibility Plan with each airport proprietor.

The City has no direct authority over the SBIA. As such, the plans created by the Airport, as well as federal and state regulation of aircraft activity, are important to our land use planning.

There are several documents related to the SBIA that have particular relevance to San Bernardino: the San Bernardino International Trade Center Specific Plan details land use, infrastructure, circulation, and design plans for the non-aviation portions of the Airport; the Airport Master Plan details the concept for the long-term development of the Airport and displays the concept graphically and in technical reports; and the Comprehensive Land Use Plan (CLUP), which is intended to provide for the orderly and safe development of both the Airport and surrounding community and minimize noise and safety conflicts.

In accordance with Federal Aviation Regulations, restrictions may apply to some types of development proposed within the Airport's identified safety and noise zones. These restrictions are addressed in the *General Plan* Land Use, Circulation, and Noise Elements. Refer to *Exhibit 5.1-2, San Bernardino International Airport Planning Boundaries*.



SOURCE: City of San Bernardino General Plan, November 1, 2005.

ENVIRONMENTAL IMPACT REPORT
SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS

San Bernardino International Airport Planning Boundaries

Exhibit 5.1-2

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5.1.2 ENVIRONMENTAL SETTING

FOUNDATION COMPONENT PLAN

The City of San Bernardino utilizes a Foundation Component Plan, which provides the basic land use structures of the City. However, these Foundation Components are not intended to determine the specific land use on individual parcels. The Foundation Component Plan is comprised of nine broad land uses: Single-Family Residential, Multi-Family Residential, Commercial Office, Commercial General, Commercial Regional, Commercial Heavy, Industrial, Public Facility/Quasi Public, and Open Space. Each of these Foundation Components is subdivided into more detailed land use designations at the *General Plan* level.

EXISTING LAND USES

The City of San Bernardino is an entirely urbanized city that has a diverse mix of land uses. The acreage of land uses within the City is listed below in *Table 5.1-1*, *Existing City Land Use*. The Project Area encompasses a total of 2,823 acres, which represents approximately seven percent of the total City acreage.

Table 5.1-1
Existing City Land Use

Use	Acres[1]	Percent of Total
Residential	15,107	39.1
Business Related Uses (i.e., commercial, industrial)	9,198	23.8
Public/Quasi-Public Related Uses	12,542	32.5
Open Space	1,733	4.5
TOTAL	**38,580**	**100.0**

[1] Adjusted gross acreages do no include the right-of-way for existing or approved roadways, flood control facilities or railroads.

CURRENT LAND USES DESIGNATIONS

The *General Plan* includes several land use designations within the following categories: Residential, Commercial, Industrial, Public/Quasi-Public, and Open Space. A brief description of land use designations in the *General Plan* is provided below.

Residential Land Uses

San Bernardino offers a range of housing densities and products to meet the demand of current and future residents with equally varying lifestyles. In addition to the uses described below, other uses such as schools, parks, childcare facilities, and other public/institutional uses that are determined to be compatible with and oriented towards the needs of residential neighborhoods may also be allowed.

Residential Estate (RE)

The Residential Estate land use designation is characterized by single-family detached residences in an estate setting. This land use designation allows for residential dwelling units at a maximum density range of one dwelling unit per acre.

Residential Low (RL)

The Residential Low land use designation is characterized by single-family detached residences in a low-density setting. This land use designation permits residential dwelling units at a maximum density of 3.1 dwelling units per acre (10,800 minimum lot size).

Residential Low – 3.5 (RL-3.5)

The Residential Low – 3.5 land use designation is characterized by single-family detached residences in a suburban setting. This land use designation permits residential dwelling units at a maximum density of 3.5 dwelling units per acre (10,800 minimum lot size).

Residential Suburban (RS)

The Residential Suburban land use designation is characterized by single-family detached residences in a high quality suburban setting. This land use designation permits residential dwelling units at a maximum density of 4.5 dwelling units per acre (7,200 minimum lot size).

Residential Urban (RU)

The Residential Urban land use designation is characterized by single/multi-family attached and detached residences, including townhouses, stacked flats, courtyard homes, small lot subdivisions, and mobile home parks. This land use designation permits residential dwelling units at a maximum density of 9.0 dwelling units per acre (7,200 minimum lot size).

Residential Medium (RM)

The Residential Medium land use designation is characterized by multi-family dwellings including townhouses, stacked flats, courtyard homes, apartments and condominiums as well as small lot single-family developments. This land use designation permits residential dwelling units at a maximum density of 14 dwelling units per acre (14,400 minimum lot size).

Residential Medium High (RMH)

The Residential Medium High land use designation is characterized by multi-family dwellings including apartments and condominiums. This land use designation permits residential dwelling units at a maximum density of 24 dwelling units per acre.

Residential Medium High/20 (RMH/20)

The Residential Medium High/20 land use designation is characterized by multi-family dwellings including apartments and condominiums. This land use designation permits

residential dwelling units at a maximum density of 20 dwelling units per acre (20,000 minimum lot size).

Residential High (RH)

The Residential High land use designation is characterized by multi-family dwellings including apartments and condominiums. This land use designation permits residential dwelling units at a maximum density of 36 dwelling units per acre (20,000 minimum lot size).

Commercial Land Uses

San Bernardino accommodates a full spectrum of retail, service, professional, office, and entertainment uses at a range of intensities to meet the demand of current and future residents. In addition to the uses described below, other uses such as parks, childcare facilities, and other public/institutional uses that are determined to be compatible with and oriented towards the needs of commercial uses may also be allowed.

Commercial Office (CO)

The Commercial Office land use designation is characterized by professional offices including financial, legal, insurance, medical, and other similar uses. This land use designation allows a floor area ratio of 1.0.

Commercial General (CG)

The Commercial General land use designation is characterized by local and regional serving retail, personal service, entertainment, office, related commercial uses and limited residential uses with a Conditional Use Permit (CUP). This land use designation allows for a floor area ratio of 0.7.

Commercial General – 2 (CG-2)

The Commercial General – 2 land use designation is characterized by local and regional serving retail, personal service, entertainment, office, related commercial uses and limited residential uses with a CUP. This land use designation allows for a floor area ratio of 1.0.

Commercial General – 3 (CG-3) Paseo Las Placitas

The Commercial General – 3 Paseo Las Placitas land use designation is characterized by local and regional serving retail, personal service, entertainment, office, and related commercial uses. This land use designation allows for a floor area ratio of 1.0.

Central City South – 1 (CCS-1)

The Central City South – 1 land use designation is characterized by local and regional serving retail and service uses. This land use designation allows for a floor area ratio of 1.0.

University Business Park – 2 (UBP-2)

The University Business Park – 2 land use designation is characterized by local and regional serving retail and service uses. This land use designation allows for a floor area ratio of 1.0.

University Business Park – 3 (UBP-3)

The University Business Park – 3 land use designation is characterized by local and regional serving retail and service uses. This land use designation allows for a floor area ratio of 1.0.

Commercial Regional – 1 (CR-1) Regional Malls

The Commercial Regional – 1 (CR-1) Regional Malls land use designation is characterized by large scale, regional serving retail and service uses. This land use designation allows for a floor area ratio of 1.5.

Commercial Regional – 2 (CR-2) Downtown

The Commercial Regional – 2 (CR-2) Downtown land use designation is a mixture of regional serving retail, service, office, outdoor dining, entertainment, cultural, and residential uses that enhance the downtown area as the functional and symbolic center of the City of San Bernardino.. This land use designation allows for a non-residential intensity of 3.0 (floor area ratio) and a 4.0 floor area ratio if a vertical mixed use project is proposed. For residential uses this land use allows 54 dwelling units per acre.

Commercial Regional – 3 (CR-3) Tri-City Commercial

The Commercial Regional – 3 (CR-3) Tri-City Commercial land use designation is characterized by a mixture of regional serving retail, service, tourist, office, entertainment, financial establishments, restaurants and supporting outdoor dining, hotels/motels, research and development, high technology, business parks, warehouse/promotional retail, and supporting services uses that capitalize on the location along the Interstate 10 corridor. This land use designation allows for a floor area ratio of 0.7 for commercial, 3.0 for hotels and offices, and 1.5 for research and development.

Commercial Regional – 4 (CR-4) Auto Plaza

The Commercial Regional – 4 (CR-4) Auto Plaza land use designation is characterized by new car dealerships with supporting retail and service uses. This land use designation allows for a floor area ratio of 0.7 with a one-acre minimum lot size.

Commercial Heavy (CH)

The Commercial Heavy land use designation is characterized by large-scale, regional serving retail and service uses and limited commercial and industrial uses that are characterized by an extensive use of outdoor or indoor space for their sales, service, and/or storage. This land use designation allows for a floor area ratio of 0.7 with a 10,000 square foot minimum lot size.

Industrial Land Uses

San Bernardino accommodates a full spectrum of industrial related employment uses, such as manufacturing, distribution, research and development, office, and mineral extraction, at a range of intensities to meet the demand of current and future residents. In addition to the uses described below, other uses such as parks and other public/institutional uses that are determined to be compatible with and oriented towards the needs of industrial uses may also be allowed.

Office Industrial Park (OIP)

The Office Industrial Park land use designation is characterized by employee-intensive employment uses in a park-like setting, including research and development, technology centers, corporate offices, “clean” industry and light manufacturing, and supporting retail. This land use designation allows for a floor area ratio of 1.0.

Industrial Light (IL)

The Industrial Light land use designation is characterized by a variety of light industrial uses, including warehousing/distribution, assembly, light manufacturing, research and development, mini storage, and repair facilities conducted within enclosed structures as well as supporting retail and personal uses. This land use designation allows for a floor area ratio of 0.75.

Industrial Heavy (IH)

The Industrial Heavy land use designation is characterized by a variety of intense industrial activities that could potentially generate significant impacts, such as excessive noise, dust, and other nuisances, such as rail yards and multi-modal transportation centers. This land use designation allows for a floor area ratio of 0.75.

Industrial Extractive (IE)

The Industrial Extractive land use designation is characterized by mineral, sand, and gravel extraction with an approved Mineral Reclamation Plan in accordance with the California Surface Mining and Reclamation Act. This land use designation allows for a floor area ratio of 0.05.

University Business Park – 1 (UBP-1)

The University Business Park – 1 land use designation is characterized by employee-intensive employment uses in an industrial setting, including research and development, technology centers, corporate offices, and “clean” industry. This land use designation allows for a floor area ratio of 0.75.

Central City South – 1 (CCS-2)

The Central City South – 2 land use designation is characterized by a variety of light industrial uses, including warehousing/distribution, limited manufacturing, research and development, service commercial, and repair facilities. This land use designation allows for a floor area ratio of 0.7.

Public/Quasi-Public Land Uses

San Bernardino accommodates a full spectrum of public facilities and institutional uses to meet the demand of current and future residents.

Publicly Owned Flood Control (PFC)

The Publicly Owned Flood Control land use designation allows for flood control facilities. This land use designation does not specify a maximum allowable density or intensity (floor area ratio).

Public Facilities (PF)

The Public Facilities land use designation allows for public facilities, governmental institutions, transportation facilities, public schools (K-12), public or private colleges and universities, museums, and public libraries. This land use designation does not specify a maximum allowable density or intensity (floor area ratio).

Central City South – 3 (CCS-3)

The Central City South – 3 land use designation allows for flood control facilities. This land use designation does not specify a maximum allowable density or intensity (floor area ratio).

Road Right-of-Way (ROW)

The Road Right-of-Way land use designation allows for street rights-of-way. This land use designation does not specify a maximum allowable density or intensity (floor area ratio).

Railroad (RR)

The Railroad land use designation allows for railroad facilities. This land use designation does not specify a maximum allowable density or intensity (floor area ratio).

Open Space Land Uses

San Bernardino accommodates a full spectrum of active and passive recreational uses such as parks, trails, athletic fields, golf courses, fair grounds, and stadiums, as well as those areas intended to remain in natural open space.

Public Parks (PP)

The Public Parks land use designation allows for public parks and recreational facilities. This land use designation allows for zero dwelling units per acre.

Open Space (OS)

The Open Space land use designation allows for permanent open space. This land use designation allows for zero dwelling units per acre.

Public/Commercial Recreation (PCR)

The Public/Commercial Recreation land use designation allows for intensive recreational uses, such as golf courses, sports complexes, and fair grounds as approved through the public review process. This land use designation does not specify a maximum allowable density or intensity (floor area ratio), but rather is handled on a case-by-case basis.

5.1.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to land use. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Physically divide an established community (refer to Section 8.0, Effects Found Not To Be Significant);
- Conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect;
- Conflict with any applicable habitat conservation plan or natural community conservation plan (refer to Section 8.0, Effects Found Not To Be Significant);
- Be developed within the Hillside Management Overlay District (refer to Section 8.0, Effects Found Not To Be Significant);
- Be developed within Foothilll Fire Zones A, B, or C as identified in the City's *General Plan* (refer to Section 8.0, Effects Found Not To Be Significant); or,
- Be developed within the Airport Influence Area as adopted by the San Bernardino International Airport Authority.

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a "significant unavoidable impact."

5.1.4 PROJECT IMPACTS AND MITIGATION MEASURES

Section 3.6, Project Characteristics, provides a detailed description of the various project components, including Projects and Programs to Eliminate Blight, which include:

- Downtown Core Vision/Action Plan
- Projects and Programs
    - Public Facilities and Infrastructure Improvements
    - Environmental Conservation
    - Environmental Remediation and Brownfields Revitalization
    - Land Use Planning to Guide Redevelopment
    - Public Transit
    - Infill Development Projects and Affordable Housing
    - Economic Development Activities

The projects and programs in Section 3.6 describe how they will eliminate blight, how they will improve the conditions of blight, and the reasons the projects or programs cannot be completed without the proposed project.

In addition, Section VI (600) of the *Merged, Amended, and Restated Redevelopment Plan for the San Bernardino Merged Redevelopment Project Area* covers the following topics related to permitted uses in the Merged Area A:

601, Maps and Uses Permitted
602, Major Land Uses (as now provided in the *General Plan*)
603, Public Uses
604, Public Street Layout, Rights-of-Way, and Easements
605, Other Public and Open Space Uses
606, Conforming Properties/Certificates of Conformance
607, Nonconforming Uses
608, Interim Uses
609, General Controls and Limitations
610, New Construction
611, Rehabilitation
612, Number of Dwelling Units
613, Open Space and Landscaping
614, Limitations on Type, Size, and Height of Buildings
615, Signs
616, Utilities
617, Incompatible Uses
618, Subdivision of Parcels
619, Minor Variations
620, Design for Development
621, Building Permits

Several key paragraphs from Section VI (600) that pertain specifically to *General Plan* and zoning land uses are restated below.

(601) Maps and Uses Permitted

The Map attached hereto as Exhibit A and incorporated herein illustrate the location of Merged Area A boundaries, the immediately adjacent streets, and existing public rights-of-way and public easements. The land uses permitted by this Merged Plan shall be those permitted by the General Plan and City zoning ordinances as they now exist or may hereafter be amended.

(602) Major Land Uses (as now provided in the General Plan)

Major land uses permitted within Merged Area A shall include: Commercial, Industrial, Residential, Public Institutional, and special uses such as specific plan uses. The areas shown on the plan maps may be used for any of the various kinds of uses specified for or permitted within such areas by the General Plan and Zoning Ordinance as they exist or are hereafter amended in the future.

(609) General Controls and Limitations

All real property in Merged Area A is hereby made subject to the controls and requirements of this Merged Plan. No real property shall be developed, redeveloped, rehabilitated, or otherwise changed after the date of the adoption of this Merged Plan except in conformance with the goals and provisions of this Merged Plan and all applicable City codes and ordinances. The land use controls of this Merged Plan shall apply for the periods set forth in Section X below. The type, size, height, number and use of buildings within Merged Area A will be controlled by the applicable City planning and zoning ordinances as they now exist or may hereafter be amended from time to time.

CONSISTENCY WITH CITY LAND USE PLANS, POLICIES, OR ORDINANCES

City of San Bernardino General Plan

◆ **THE PROPOSED PROJECT COULD CONFLICT WITH THE CITY OF SAN BERNARDINO GENERAL PLAN.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: The 2005 *General Plan* is the primary policy planning document that guides land uses in the City. Therefore, relevant land use policies from the Land Use Element have been reviewed in *Table 5.1-2*, *Consistency With City of San Bernardino General Plan Land Use Element*, to ensure consistency with the proposed project. The review will focus on three land goals:

- Goal 2.4 related to Redevelopment and Revitalization

  Enhance the quality of life and economic vitality in San Bernardino by strategic infill of new development of revitalization of existing development.

- Goal 2.3 related to Distinct Character and Identity

  Create and enhance dynamic, recognizable places for San Bernardino's residents, employees, and visitors.

- Goal 2.5 related to Quality Development

  Enhance the aesthetic quality of land uses and structures in San Bernardino.

Table 5.1-2
Consistency With City of San Bernardino
General Plan Land Use Element

Policy Number	Policy	Policy Consistency Analysis
2.4.1	Quality infill development shall be accorded a high priority in the commitment of City resources and available funding.	Consistent. The proposed project would encourage the rehabilitation of blighted properties and development of new residential, office, commercial, and industrial uses in the Project Area. The Agency through its authority can prioritize resources and funding to facilitate quality infill development.
2.4.2	Continue to provide special incentives and improvement programs to revitalize deteriorated housing stock, residential neighborhoods, major business corridors, and employment centers. (LU-3 and LU-4)	Consistent. The proposed project would encourage the rehabilitation of blighted properties and development of new residential, office, commercial, and industrial uses in the Project Area. The Agency through its authority can utilize incentives to revitalize deteriorated housing stock, residential neighborhoods, major business corridors, or employment centers.
2.4.3	Where necessary to stimulate the desired mix and intensity of development, land use flexibility and customized site development standards shall be achieved through various master-planning devices such as specific plans, planned development zoning, and creative site planning. (LU-1)	Consistent. The Agency has already undertaken the preparation of the Downtown Core Vision/Action Plan, which is detailed in Section 3.6. The City and/or the Agency can determine if specific plans, planned development zoning, or creative site planning is warranted for future development in the Project Area to stimulate the desired mix and intensity of development.
2.4.4	Protect large parcels that front onto freeways and commercial corridors from subdivision into smaller parcels.	Consistent. The proposed project would provide the opportunity for land assembly that would allow for larger and more easily developable areas. Specifically, the Agency would be allowed to acquire property through negotiation in the Project Area. This would allow for the assembly of parcels and projects involving multiple parcels.
2.4.6	Work with Omnitrans to explore initiatives that promote redevelopment near transit stops in order to encourage transit ridership, reduce vehicular trips, improve air quality, and improve traffic congestion: a. Concentrate mixed use development, retail, employment, entertainment, educational, and civic/government uses within walking distance of transit stops.	Consistent. The proposed project would allow for redevelopment activities to occur within areas near transit stops to enhance economic diversity, extend the tax base, provide a diversity of job and housing opportunities, and provide goods and services to San Bernardino residents. The Agency would continue to coordinate with Omnitrans regarding transit and redevelopment projects.

Table 5.1-2 (continued)
Consistency With City of San Bernardino
General Plan Land Use Element

Policy Number	Policy	Policy Consistency Analysis
	b. Explore the use of incentives that can be awarded to projects that provide pedestrian amenities (wide sidewalks, public plazas, seating areas, etc.) and/or include desirable uses located within walking distance (1/2 mile) of transit stops. Incentives may include density bonuses, increases in non-residential floor area, reductions in parking requirements, and modified development standards.	
2.3.1	Commercial centers, open spaces, educational facilities, and recreational facilities should be linked to residential neighborhoods. (LU-1)	Consistent. The proposed project would encourage the rehabilitation of blighted properties and development of new residential, office, commercial, and industrial uses in the Project Area. Future development within the Project Area will be reviewed to ensure commercial centers, open space, education facilities, and recreational facilities are linked to residential neighborhoods.
2.3.2	Promote development that is compact, pedestrian-friendly, and served by a variety of transportation options along major corridors and in key activity areas. (LU-1)	Consistent. The proposed project would allow for and encourage redevelopment activity within the Project Area, allowing for compact, pedestrian-friendly development that maximizes the use of land and transportation options through infill development.
2.3.6	Circulation system improvements shall continue to be pursued that facilitate connectivity across freeway and rail corridors. (C-1)	Consistent. The proposed project includes areas of the City in proximity to existing and future freeway and rail corridors. Future development within the Project Area will be reviewed to ensure connectivity is maintained or added.
2.3.7	Improvements shall be made to transportation corridors that promote physical connectivity and reflect consistently high aesthetic values. (CD-1)	Consistent. The proposed project includes improvements to existing infrastructure and as new development projects occur, require infrastructure to be in place or planned prior to their construction. Future development within the Project Area will be reviewed to ensure connectivity is maintained or added.
2.3.8	Continue to enhance Hospitality Lane as a major shopping and office center for the City. (CD-3)	Consistent. Implementation of the proposed project would allow for redevelopment activities that would promote and encourage Hospitality Lane as a major shopping and office center in the City.
2.3.9	Facilitate the improvement and expansion of the National Orange Show, including the formulation of a master plan that addresses on-site and surrounding uses, access, and design. (CD-3)	Consistent. Implementation of the proposed project would allow for redevelopment activities that would facilitate the improvement and expansion of the National Orange Show. The City and/or the Agency can determine if master plans, specific plans, planned development zoning, or creative site planning is warranted for the National Orange Show.

Table 5.1-2 (continued)
Consistency With City of San Bernardino
General Plan Land Use Element

Policy Number	Policy	Policy Consistency Analysis
2.5.1	Use code enforcement in coordination with all relevant City departments to reverse deterioration and achieve acceptable levels of development quality. These efforts should focus on structural maintenance and rehabilitation, debris and weed removal, property maintenance, and safety. (LU-4 and LU-5)	Consistent. The project proposes projects and programs, detailed in Section 3.6 to eliminate blight in the Project Area. The proposed project would encourage the rehabilitation and/or removal of existing properties that are considered hazardous or unsafe, and the development of new buildings. Potential programs and general activities to assist in this effort involve economic development and business retention, development assistance, housing assistance, and relocation assistance would assist in rehabilitation and redevelopment activities.
2.5.6	Require that new developments be designed to complement and not devalue the physical characteristics of the surrounding environment, including consideration of: a. The site's natural topography and vegetation; b. Surrounding exemplary architectural design styles; c. Linkages to pedestrian, bicycle, and equestrian paths; d. The use of consistent fencing and signage; e. The provision of interconnecting greenbelts and community amenities, such as clubhouses, health clubs, tennis courts, and swimming pools; f. The use of building materials, colors, and forms that contribute to a "neighborhood" character; g. The use of extensive site landscaping; h. The use of consistent and well designed street signage, building signage, and entry monumentation; i. A variation in the setbacks of structures; j. The inclusion of extensive landscape throughout the site and along street frontages; k. The articulation of building facades to provide interest and variation by the use of offset planes and cubic volumes, building details, balconies, arcades, or recessed or projecting windows, and other techniques which avoid "box"-like structures; l. The integration of exterior stairways into the architectural design; m. The screening of rooftop mechanical equipment; n. The use of a consistent design through the use of unifying architectural design elements, signage, lighting, and pedestrian areas;	Consistent. The proposed project would encourage the rehabilitation of blighted properties and development of new residential, office, commercial, and industrial uses in the Project Area. Future development within the Project Area will be reviewed to ensure that they are designed to complement and not devalue the physical characteristics of the surrounding environment.

Table 5.1-2 (continued)
Consistency With City of San Bernardino
General Plan Land Use Element

Policy Number	Policy	Policy Consistency Analysis
	o. The provision of art and other visual amenities; p. The inclusion of awnings, overhangs, arcades, and other architectural elements to provide protection from sun, rain, and wind; and q. The location of parking at the rear, above, or below the ground floor of non-residential buildings to enhance pedestrian connectivity. (LU-1)	

The proposed project would require that no real property would be developed, redeveloped, rehabilitated, or otherwise changed except in conformance to the goals of the City of San Bernardino *General Plan*. Implementation of the proposed project is intended to develop property within a coordinated land use pattern of residential, commercial, industrial, recreational and public facilities in Project Area consistent with the goals, policies, objectives, standards, guidelines, and requirements, as set forth in the City's adopted *General Plan*.

No new land use designations are proposed for the Project Area at this time. However, the proposed project may involve future updates to land use goals, plans, and policies needed to effectively implement the Agency's redevelopment activities. The Agency has identified the following key activities which may be required in the future to allow for consistency with City plans and ordinances: *General Plan* and zoning updates; preparation of a Downtown Core Specific Plan or Overlay, or other future Specific Plans.

Based on the analysis presented above and in *Table 5.1-2*, the proposed project would serve to implement the policies identified in the *General Plan* Land Use Element. Project implementation would not conflict with the relevant land use policies and a less than significant impact would occur in this regard.

General Plan Goals and Policies: Refer to *Table 5.1-2*.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the *General Plan* are required.

Level of Significance After Mitigation: Not Applicable.

City of San Bernardino Development Code

- **THE PROPOSED PROJECT COULD CONFLICT WITH THE CITY OF SAN BERNARDINO DEVELOPMENT CODE.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: The proposed project involves a merger of seven Project Areas into one Project Area. Although several projects and programs have been identified in the proceedings related to the proposed project, if approved, detailed project specific information is not currently available. Potential development (including but not limited to the type, size, height, number and use of buildings) associated with implementation of the proposed project would be required to comply with the City's *Development Code*, except when inconsistent with the Amended and Restated Plan. Individual projects would be reviewed to determine compliance with the development requirements established by the *Development Code*. Therefore, less than significant impacts would occur in this regard.

General Plan Goals and Policies*:* Not Applicable.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not Applicable.

AIRPORT INFLUENCE AREA

- **DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD OCCUR WITHIN THE AIRPORT INFLUENCE AREA AS ADOPTED BY THE SAN BERNARDINO INTERNATIONAL AIRPORT AUTHORITY.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: A portion of the Project Area is located within the Airport Influence Area as adopted by the San Bernardino International Airport (SBIA) Authority. However, the proposed project would comply with the provisions of the Airport Master Plan and the Comprehensive Land Use Plan (CLUP) of the SBIA. The noise and safety zones would be considered during design review for site-specific projects implemented under the proposed project as they arise. Likewise, the Airport CLUP would be analyzed for relative information on a project-specific basis. *General Plan* policies 2.9.1, 2.9.5, and 2.9.6 would ensure that when site-specific development projects become available, inconsistencies with the Airport Master Plan and CLUP would not occur.

At this programmatic stage, the proposed project does not include structures/features that would impact traffic patterns. While the Project Area is within airport noise or safety zones, future site-specific development projects would be required to conform to the air traffic-related *General Plan* policies listed below. Therefore, less than significant impacts are anticipated.

General Plan Goals and Policies:

Goal 2.9 **Protect the airspace of the San Bernardino International Airport and minimize related noise and safety impacts on our citizens and businesses.**

Policy 2.9.1 New development would be required to be consistent with the adopted CLUP of the SBIA and the City would ensure that no structures or activities encroach upon or adversely affect the use of navigable airspace.

Policy 2.9.2 Any amendment of the *General Plan*, specific plans, zoning ordinance changes, or building regulations within the planning boundary of the Airport Master Plan would be referred to the airport authority as provided by Airport Land Use Law.

Policy 2.9.5 New developed would be required to limit the heights of structures such that they do not impact navigable airspace, as defined in the CLUP for the SBIA.

Policy 2.9.6 As required by State Law for real estate transactions within the Airport Influence Area, the City would require notification/disclosure statements to alert potential buyers and tenants of the presence of and potential impacts from the San Bernardino International Airport.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the *General Plan* are required.

Level of Significance after Mitigation: Not Applicable.

5.1.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **IMPLEMENTATION OF THE PROPOSED PROJECT COMBINED WITH OTHER RELATED CUMULATIVE PROJECTS COULD RESULT IN CUMULATIVELY CONSIDERABLE LAND USE AND PLANNING IMPACTS.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: For this topic, the cumulative impacts are analyzed in terms of impacts within the City. The proposed project identifies several projects and programs to eliminate blight that may occur if the proposed merger and amendments project is approved. Future projects within the City, including those in Merged Area A would be required to mitigate land use impacts on a project-by-project basis. Therefore, the incremental impact of the proposed project, when considered in combination with development within the City, would not result in cumulatively considerable land use impacts. Relevant policies from the *General Plan* Land Use Element were reviewed for consistency purposes in *Table 5.1-2*, above. Future projects would be reviewed for consistency with the General Plan in place at the time. In addition, potential development within the Merged Area A would be required to comply with the City's *Development Code*, except when inconsistent with the Amended and Restated Plan. Individual projects would be reviewed to determine compliance with the development requirements

established by the *Development Code*. Therefore, cumulative land use impacts are considered less than significant in this regard.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the *General Plan* are required.

Level of Significance after Mitigation: Not Applicable.

5.1.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Land use impacts associated with implementation of the proposed project would be less than significant with compliance with the *General Plan* goals and policies, *Development Code*, Airport Master Plan, and SBIA Comprehensive Land Use Plan. Therefore, no significant unavoidable land use impacts would occur as a result of the proposed project.

5.1.7 SOURCES CITED

Merged, Amended, and Restated Redevelopment Plan for the San Bernardino Merged Redevelopment Project Area A, Redevelopment Agency of the City of San Bernardino, February 26, 2010.

Preliminary Report: San Bernardino Project Area Merger and Amendments, Rosenow Spevacek Group Inc., April 5, 2010.

San Bernardino General Plan, City of San Bernardino, November 1, 2005.

San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report (SCH #2004111132), City of San Bernardino, September 30, 2005.

SCAG Region: Compass Blueprint Case Study, Downtown San Bernardino, Southern California Association of Governments, 2008.

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SECTION 5.2
POPULATION AND HOUSING

5.2 POPULATION, EMPLOYMENT, AND HOUSING

This section identifies existing conditions, analyzes potential population, employment, and housing impacts associated with the proposed project. This section is based on information from the *General Plan* Housing, Economic Development, and Community Design Elements, the *San Bernardino Final General Plan Update and Associated Specific Plans Environmental Impact Report*, the California Department of Finance (DOF) Population and Housing Report (January 2009), the 1990 and 2000 United States Census, the California Employment Development Department (EDD), and the Southern California Association of Governments (SCAG) growth forecasts.

5.2.1 REGULATORY SETTING

Applicable Federal, State, and local regulatory policies and laws that apply to population, housing, and growth are discussed below.

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

SCAG is the responsible agency for developing and adopting regional housing, population, and employment growth forecasts for local governments from Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. To facilitate regional planning efforts, SCAG's planning area is further organized into 14 subregions. The City of San Bernardino, located in District Seven, is one of 20 cities in the San Bernardino Associated Governments (SANBAG) Subregion. The SANBAG Subregion includes the entire County of San Bernardino.

SCAG's demographic data is developed to enable the proper planning of infrastructure and facilities to adequately meet the needs of the anticipated growth. On May 8, 2008, SCAG adopted its 2008 Regional Transportation Plan (RTP). The 2008 RTP represents an assessment of the overall growth and economic trends in the SCAG region for the years 2008 through 2035. The plan also provides the transportation vision for the SCAG region and provides a long-term investment framework for addressing the region's transportation and related challenges.

SCAG's Baseline Growth Forecasts, approved March 6, 2006, is incorporated into the 2008 RTP and provides the basis for developing the land use assumptions at the regional and local levels. The Baseline Growth Forecasts include projections for San Bernardino County, the SANBAG Subregion, and the City of San Bernardino. These projections are used as the basis of analysis for housing, population, and employment forecasts in the section.

5.2.2 ENVIRONMENTAL SETTING

POPULATION

Population data for the San Bernardino (County), SANBAG Subregion, and the City of San Bernardino (City) is presented in *Table 5.2-1*, *Population Data*.

Table 5.2-1
Population Data

Year	County of San Bernardino	SANBAG Subregion[1]	City of San Bernardino
1990[2]	1,418,380	N/A	164,164
2000[3]	1,709,434	N/A	185,401
1990 - 2000 Percent Change	+20.5%	N/A	+12.9%
2009[4]	2,060,950	N/A	204,483
2010[1]	2,182,049	2,182,049	213,318
2030[5]	2,957,753	2,957,753	276,264
2010- 2030 Percent Change	+35.5%	+35.5%	+29.5%

N/A = Not Available

1. Southern California Association of Governments, *2008 Regional Transportation Plan, Growth Forecasting*, May 8, 2008, http://www.scag.ca.gov/forecast/downloads/excel/RTP07_CityLevel.xls, accessed April 5, 2010.
2. U.S. Census Bureau, Census 1990.
3. U.S. Census Bureau, Census 2000.
4. County of Los Angeles housing data obtained from the State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties and the State, 2001-2009, with 2000 Benchmark*. Sacramento, California, May 2009.
5. *Final General Plan Update and Associated Specific Plans Environmental Impact Report*, Section 5.11 Population and Housing, Table 5.11-3, Page 5.11-5, prepared by The Planning Center, dated September 30, 2005.

San Bernardino County

The County's population totaled 1,418,380 persons in 1990 and 1,709,434 persons in 2000, which represents an approximate 20.5 percent increase in population between 1990 and 2000. The County's population was an estimated 2,060,950 persons in 2009. As of January 2010, the County's population was an estimated 2,182,049 persons by 2010 and 2,957,753 persons by 2030, which would represent an approximate 35.5 percent increase between 2010 and 2030.

SANBAG Subregion

The SANBAG Subregion population is projected to total 2,182,049 persons in 2010 and 2,957,753 persons in 2030, which would represent an increase of approximately 35.5 percent between 2010 and 2030.

City of San Bernardino

As indicated in *Table 5.2-1*, the City's population totaled 164,164 persons in 1990 and 185,401 persons in 2000, which represents an approximate 12.9 percent increase in population between 1990 and 2000. Currently (2010), the City has an estimated population of 213,318 persons. According to the *General Plan*, the City's population is projected to total 276,264[1] persons by 2030, which would represent an approximate 29.5 percent increase during this time. Comparatively, the City's population growth rate would be higher than projected for the County

[1] Final General Plan Update and Associated Specific Plans EIR, Public Services, prepared by The Planning Center, dated September 30, 2005.

and SANBAG Subregion. However, it is worth noting that the *General Plan* buildout projections assume a larger population in the City than projected by SCAG.

EMPLOYMENT

Employment data for San Bernardino County, SANBAG Subregion, and City of San Bernardino is presented in *Table 5.2-2*, *Employment Data*. The civilian labor force includes all persons 16 years old and below retirement age who are employed, excluding military jobs. The labor market includes available jobs opportunities based on existing non-residential land uses.

San Bernardino County

As indicated in *Table 5.2-2*, the County's 1990 civilian labor force was an estimated 1,018,897 persons, of which 4.8 percent were unemployed. In 2000, the County's civilian labor force was an estimated 1,214,368 persons, with approximately 8.3 percent unemployed. Between 1990 and 2000, the unemployment rate (unemployed persons relative to the civilian labor force) increased by approximately 3.5 percent. Between 2006 and 2008, the County's labor force totaled 944,817 persons, with an unemployment rate of 8.4 percent. This indicates that between 2000 and 2008, the unemployment rate increased by 0.1 percent.

Table 5.2-2
Employment Data

Year	County of San Bernardino	SANBAG Subregion[4]	City of San Bernardino
Civilian Labor Force			
1990[1]	1,018,897	N/A	61,337
2000[2]	1,214,368	N/A	70,413
1990 Unemployment Rate (Percent)[2]	4.8%	N/A	12.7%
2000 Unemployment Rate (Percent)[2]	8.3%	N/A	11.4%
1990 – 2000 Change in Unemployment Rate (Percent)	+3.5%	N/A	-1.3%
2006-2008	944,817	N/A	89,144
2006-2008 Unemployment	8.4%	N/A	10.5%
Labor Market (Jobs)			
2010[3,4]	810,233	810,233	107,023
2030[4]	1,134,960	1,134,960	**338,712[5]**
2010- 2030 Percent Change	+40.1%	+40.1%	**+216.5%**

1. U.S. Census Bureau, Census 1990.
2. U.S. Census Bureau, Census 2000.
3. California Employment Development Department, Labor Force Data (Civilian Labor Force, Employment, Unemployment, Unemployment Rate): Labor Force Data Search (Not seasonally adjusted), September 2008, http://www.labormarketinfo.edd.ca.gov/cgi/dataanalysis/AreaSelection.asp?tableName=Labforce, accessed April 5, 2010.
4. Southern California Association of Governments, *2008 Regional Transportation Plan, Growth Forecasting*, May 8, 2008, http://www.scag.ca.gov/forecast/downloads/excel/RTP07_CityLevel.xls, accessed April 5, 2010.
5. *Final General Plan Update and Associated Specific Plans Environmental Impact Report*, Section 5.11 Population and Housing, Table 5.11-3, Page 5.11-5, prepared by The Planning Center, dated September 30, 2005.

SANBAG Subregion

As indicated in *Table 5.2-2*, the SANBAG Subregion labor market is projected to increase to 810,233 jobs by 2010 and 1,134,960 jobs by 2030, which would represent a 40.1 percent increase in job opportunities between 2010 and 2030.

City of San Bernardino

As indicated in *Table 5.2-2*, the City's 1990 civilian labor force totaled approximately 61,337 persons, with an unemployment rate of approximately 12.7 percent. In 2000, the City's civilian labor force totaled an estimated 70,413 persons, with approximately 11.4 percent unemployed. This represented an approximate 1.3 percent decrease in the employment rate (unemployed persons relative to the civilian labor force) between 1990 and 2000. Between 2006 and 2008, the City's labor force was an estimated 89,144 persons, with 10.5 percent unemployed, representing a 9.2 percent increase in the City's unemployment rate between 2000 and 2008. The labor market is projected to increase to 107,023 jobs by 2010 and 338,712[2] jobs by 2030, which would represent a 216.5 percent increase in jobs opportunities between 2010 and 2030. However, it is worth noting that the *General Plan* buildout projections assume a larger number of jobs in the City that projected by SCAG.

According to the City of San Bernardino 2009 Draft Housing Element, the majority of the County's labor force (approximately 12.7 percent) was employed in retail trade; the second highest concentration of the labor force (approximately 10.9 percent) was in manufacturing; the third highest concentration of the labor force (approximately 10.6 percent) was in health care and social assistance.[3] Accordingly, the largest employers in the City are the County of San Bernardino, Stater Brothers Markets, and the San Bernardino City Unified School District.[4]

HOUSING

Housing data for the County, SANBAG Subregion, and City of San Bernardino is presented in *Table 5.2-3*, *Housing Data*.

San Bernardino County

As indicated in *Table 5.2-3*, the County's housing inventory in 2000 was an estimated 601,369 dwelling units, which represented an increase of approximately 29.4 percent over the 1990 inventory of 464,737 dwelling units.[5] The County's housing inventory as of January 2009 totaled 690,234 dwelling units, with a vacancy rate of 11.6 percent and an average household size of 3.29 persons. The County's housing inventory is projected to be 637,250 dwelling units by 2010 and 972,561 dwelling units by 2030, representing an increase of approximately 52.6 percent from 2010 to 2030.

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2 Final General Plan Update and Associated Specific Plans EIR, Public Services, Table 5.11-3, prepared by The Planning Center, dated September 30, 2005.
3 City of San Bernardino Draft Housing Element, December 2009.
4 Ibid.
5 U.S. Census Bureau, 1990 and 2000.

Table 5.2-3
Housing Data

Year/Description	County of San Bernardino	SANBAG Subregion[1]	City of San Bernardino
1990 Dwelling Units[2]	464,737	N/A	54,482
2000 Dwelling Units[3]	601,369	N/A	63,535
1990 - 2000 Percent Change	+29.4%	N/A	+16.6%
2009 Dwelling Units[4, 5]	690,234	N/A	66,640
2009 Vacancy Rate[4,5]	11.6%	N/A	11.0%
2009 Persons per Household[4,5]	3.29	N/A	3.33
2010 Dwelling Units[1]	637,250	637,250	60,876
2030 Dwelling Units[1]	972,561	972,561	73,367[6]
2010 - 2030 Percent Change	+52.6%	+52.6%	+20.5%

Not Available = N/A

1. Southern California Association of Governments, *2008 Regional Transportation Plan, Growth Forecasting*, May 8, 2008, http://www.scag.ca.gov/forecast/downloads/excel/RTP07_CityLevel.xls, accessed April 5, 2010.
2. U.S. Census Bureau, Census 1990.
3. U.S. Census Bureau, Census 2000.
4. County of Los Angeles housing data obtained from the State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties and the State, 2001-2009, with 2000 Benchmark*. Sacramento, California, May 2009.
5. *City of San Bernardino Draft Housing Element*, December 2009.
6. *Final General Plan Update and Associated Specific Plans Environmental Impact Report*, Section 5.11 Population and Housing, Table 5.11-3, Page 5.11-5, prepared by The Planning Center, dated September 30, 2005.

SANBAG Subregion

The SANBAG Subregion housing inventory is projected to total 637,250 dwelling units in 2010 and 972,561 dwelling units in 2030, which would represent an increase of approximately 52.6 percent from 2010 to 2030.

City of San Bernardino

In 2000, the City's housing stock was an estimated 63,535 dwelling units. The 2000 housing inventory represented an increase of approximately 16.6 percent more than the 54,482 dwelling units estimated in the U.S. Census 1990. As indicated in *Table 5.2-3*, the City's 2009 housing stock was estimate to be 66,640 dwelling units.

SCAG projects the City's housing stock will be 60,876 dwelling units in 2010 and 73,367[6] dwelling units in 2030, which would represent an approximate 20.5 percent increase in dwelling units between 2010 and 2030. Comparatively, the City's housing growth rate would be significantly less than the growth projected for the County and the SANBAG Subregion. However, it is worth noting that the *General Plan* buildout projections assume a greater number of housing units in the City than projected by SCAG.

[6] Final General Plan Update and Associated Specific Plans EIR, Public Services, Table 5.11-3, prepared by The Planning Center, dated September 30, 2005.

5.2.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to population and housing. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Induce substantial population growth in an area, either directly (for example, proposing new homes and business) or indirectly (for example, through extension roads or other infrastructure);

- Remove existing housing and displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.2.4 PROJECT IMPACTS AND MITIGATION MEASURES

POPULATION GROWTH

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD INCREASE THE RESIDENTIAL POPULATION BY 6,122 PERSONS WITHIN THE PROJECT AREA.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: As indicated in *Table 5.2-1*, the City's current (2010) estimated population was 213,318 persons. According to the *General Plan*, the City's population is projected to total 276,264 persons by forecast year 2030. This indicates that between 2010 and 2030, the population rate would increase by 29.5 percent. Implementation of the proposed project would result in the addition of 6,122 persons, which would account for approximately 2.2 percent of the population growth under the *General Plan*. This anticipated growth has been planned for within the *General Plan*. Furthermore, the *General Plan* includes goals and policies to reduce potential population growth-related impacts. As such, population growth impacts are considered to be less than significant.

General Plan Goals and Policies:

LAND USE ELEMENT

Goal 2.1 **Preserve and enhance San Bernardino's unique neighborhoods.**

Policy 2.1.1 Actively enforce development standards, design guidelines, and policies to preserve and enhance the character of San Bernardino's neighborhoods.

Goal 2.2 **Promote development that integrates with and minimizes impacts on surrounding land uses.**

Policy 2.2.1 Ensure compatibility between land uses and quality design through adherence to the standards and regulations in the Development Code and policies and guidelines in the Community Design Element.

Goal 2.4 **Enhance the quality of life and economic vitality in San Bernardino by strategic infill of new development and revitalization of existing development.**

Policy 2.4.1 Quality infill development shall be accorded a high priority in the commitment of City resources and available funding.

Policy 2.4.2 Continue to provide special incentives and improvement programs to revitalize deteriorated housing stock, residential neighborhoods, major business corridors, and employment centers.

Policy 2.4.3 Where necessary to stimulate the desired mix and intensity of development, land use flexibility and customized site development standards shall be achieved through various master-planning devices such as specific plans, planned development zoning, and creative site planning.

Goal 2.6 **Control development and the use of land to minimize adverse impacts on significant natural, historic, cultural, habitat, and hillside resources.**

Policy 2.6.2 Balance the preservation of plant and wildlife habitats with the need for new development through site plan review and enforcement of the California Environmental Quality Act (CEQA).

Goal 2.7 **Provide for the development and maintenance of public infrastructure and services to support existing and future residents, businesses, recreation, and other uses.**

Policy 2.7.5 Require that development be contingent upon the ability of public infrastructure to provide sufficient capacity to accommodate its demands and mitigate its impacts.

HOUSING ELEMENT

Goal 3.1 **Facilitate the development of a variety of types of housing to meet the needs of all income levels in the City of San Bernardino.**

Policy 3.1.1 Accommodate the production of new housing units on currently vacant or underutilized land at densities and standards designated in the Land Use Element of the *General Plan*.

Policy 3.1.4 Accommodate residential development in areas of the Central City designated for mixed commercial and residential use in accordance with policies in the Land Use Element.

Goal 3.3 **Assist in the development of adequate housing to meet the needs of low and moderate-income households.**

Policy 3.3.1 In compliance with state law (Government Code Section 65915), provide density bonuses and/or regulatory and financial incentives to developers who propose to include a specified percentage of very low-income, low-income, and/or senior housing in new development projects or as part of the conversion of rental apartments to condominiums.

COMMUNITY DESIGN ELEMENT

Goal 5.3 **Recognize unique features in individual districts and neighborhoods and develop a program to create unifying design themes to identify areas throughout the City.**

Policy 5.3.6 Provide for streetscape improvements, landscape and/or signage that uniquely identify architecturally or historically significant residential neighborhoods.

Goal 5.5 **Develop attractive, safe, and comfortable single-family neighborhoods.**

Policy 5.5.1 Require new and in-fill development to be of compatible scale and massing as existing development yet allow the flexibility to accommodate unique architecture, colors, and materials in individual projects.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the *General Plan* are required.

Level of Significance After Mitigation: Not Applicable.

EMPLOYMENT GROWTH

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN THE ADDITION OF 6,200,590 SQUARE FEET OF NON-RESIDENTIAL DEVELOPMENT AND 16,601 JOBS WITHIN THE PROJECT AREA.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: According to SCAG projections, the City's the City's current (2010) labor market (jobs) totaled approximately 107,023[7]; refer to *Table 5.2-2*. According to the *General Plan*, potential development associated with the *General Plan* would produce a total of 338,712[8] jobs by forecast year 2030. This indicates that between 2010 and 2030, total jobs would increase by 216.5 percent. Implementation of the proposed project would result in the addition of 6,200,590 square feet of non-residential development and 16,601 jobs, which would account for approximately 4.9 percent of total employment opportunities under the *General Plan*. The proposed project is intended to stimulate the economic development within the Project Area. This anticipated growth has been planned for within the *General Plan*.

At the regional level, the emphasis has primarily been placed on achieving a balance of employment and housing opportunities within the subregions. This regional concept, referred to as jobs/housing balance, encourages the designation and zoning of sufficient land for residential uses with appropriate standards to ensure adequate housing is available to serve the needs derived from the local employment base. In addition, the jobs/housing balance helps improve regional mobility (traffic), reduce vehicle miles traveled, and thereby improve air quality.

The jobs/housing ratio can be used as the general measure of balance between a community's employment opportunities and the housing needs of its residents. A rate of 1.0 or greater generally indicates that a City provides adequate employment opportunities in the City, potentially allowing its residents to work in the City. Ideally, more of a balance between the jobs and housing ratio in a City would improve secondary effects of a low jobs/housing ratio, such as increase commutes and corresponding traffic, air quality, and reduced quality of life. The jobs/housing ratio at buildout of the *General Plan*, which includes the proposed project, is 4.62, which is greatly above the 1.0 ratio. Furthermore, the *General Plan* includes goals and policies to reduce potential employment related impacts. As such, employment growth impacts are considered to be less than significant.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the General Plan are required.

Level of Significance After Mitigation: Not Applicable.

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7 Southern California Association of Governments, *2008 Regional Transportation Plan, Growth Forecasting*, May 8, 2008, http://www.scag.ca.gov/forecast/downloads/excel/RTP07_CityLevel.xls, Accessed November 12, 2008.

8 Final General Plan Update and Associated Specific Plans EIR, Public Services, Table 5.11-3, prepared by The Planning Center, dated September 30, 2005.

HOUSING

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN THE ADDITION OF 1,833 DWELLING UNITS WITHIN THE PROJECT AREA.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: As indicated in *Table 5.2-3*, the City's current (2010) housing stock was an estimated 60,876 dwelling units. According to the *General Plan*, potential residential development associated with the *General Plan* would allow for a total of approximately 73,367 dwelling units by forecast year 2030. This indicates that between 2010 and 2030, total dwelling units would increase by 20.5 percent. Implementation of the proposed project would result in the addition of 1,833 dwelling units, which would account for approximately 2.5 percent of total dwelling units allowed under the *General Plan*. This anticipated growth has been planned for within the *General Plan*. Furthermore, the *General Plan* includes goals and policies to reduce potential housing related impacts. As such, housing growth impacts are considered to be less than significant.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the General Plan are required.

Level of Significance After Mitigation: Not Applicable.

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN THE REMOVAL OF EXISTING HOUSING AND DISPLACEMENT OF SUBSTANTIAL NUMBERS OF PEOPLE, NECESSITATING THE CONSTRUCTION OF REPLACEMENT HOUSING ELSEWHERE.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: Implementation of the proposed project would result in the addition of 1,833 dwelling units, which would account for approximately 2.5 percent of total dwelling units allowed under the *General Plan*. This anticipated growth has been planned for within the *General Plan*. Future development associated with implementation of the proposed project could require the demolition of both existing residential and non-residential land uses. There is the potential for existing on-site residential uses to be displaced temporarily, as sites are redeveloped, or permanently if the specific residential product type needs to be completely relocated. However, under either a temporary or permanent relocation situation, qualifying residents would receive relocation assistance in compliance with California Community Redevelopment Law.

Section V (500), Redevelopment Actions, of the *Merged, Amended, and Restated Development Plan for the San Bernardino Merged Redevelopment Project Area A* specifically identifies the Agency's responsibilities if persons are displaced (Sections 513-515) Section 514 and 515 are restated below.

(514) Relocation Program

In accordance with the provisions of the California Relocation Assistance Law (Government Code Section 7260, et seq.), the guidelines adopted and promulgated by the California Department of Housing and Community Development (the "Relocation Guidelines") and the Method of Relocation adopted by the Agency, the Agency shall provide relocation benefits and assistance to all persons (including families, business concerns and others) displaced by the Agency's acquisition of property in Merged Area A or as otherwise required by law. Such relocation assistance shall be provided in the manner required by the Method of Relocation. In order to carry out a redevelopment project with a minimum of hardship, the Agency will assist displaced households in finding decent, safe and sanitary housing within their financial means and otherwise suitable to their needs. The Agency shall make a reasonable effort to relocate displaced individuals, families, and commercial and professional establishments within Merged Area A. The Agency is also authorized to provide relocation for displaced persons outside Merged Area A.

(515) Relocation Benefits and Assistance

The Agency shall provide all relocation benefits required by law and in conformance with the Method of Relocation, Relocation Guidelines, State Relocation Law (Government Code 7260 through 7277), Redevelopment Law, and any other applicable rules and regulations. In addition, the Agency may make any additional relocation payments which, in the Agency's opinion, may be reasonably necessary to carry out the purposes of this Merged Plan. These additional payments shall be subject to the availability of funds for such purpose.

The Agency would be required to comply with any of the actions or requirements identified in the *Merged, Amended, and Restated Development Plan for the San Bernardino Merged Redevelopment Project Area A.* Furthermore, the *General Plan* includes goals and policies to reduce potential housing related impacts. As such, housing displacement impacts are considered to be less than significant.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the General Plan are required.

Level of Significance After Mitigation: Not Applicable.

5.2.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS RELATED TO HOUSING, POPULATION, AND EMPLOYMENT GROWTH.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: As indicated in *Tables 5.2-1*, *5.2-2*, and *5.2-3*, the *General Plan* projects the City would have a population of 276,264 persons, 73,367 dwelling units, and 338,712 jobs by

forecast year 2030. This anticipated growth has been planned for within the *General Plan*. Implementation of the proposed project would not alter subregional or regional growth rates projected by the *General Plan* or SCAG.

New residential and non-residential developments associated with the proposed project would serve to accommodate the estimated population growth within the Project Area. The proposed project would not contribute to potential housing deficiency resulting from increased growth within the subregion. Employment and housing growth associated with the proposed project would not change the City's job to housing balance. The *General Plan* adequately accommodates the proposed project and includes goals and policies to accommodate such growth. Thus, implementation of the proposed project would not result in cumulatively considerable population, housing, and employment impacts.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the General Plan are required.

Level of Significance After Mitigation: Not Applicable.

5.2.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Population, housing, and employment impacts associated with implementation of the proposed project would be less than significant with compliance with the *General Plan* goals and policies. Therefore, no significant unavoidable population, housing, and employment impacts would occur as a result of the proposed project.

5.2.7 SOURCES CITED

California Employment Development Department, Labor Force Data (Civilian Labor Force, Employment, Unemployment, Unemployment Rate): Labor Force Data Search (Not seasonally adjusted), September 2008, http://www.labormarketinfo.edd.ca.gov/cgi/dataanalysis/AreaSelection.asp?tableName=Labforce, accessed April 5, 2010.

City of San Bernardino General Plan, Chapter 3, Housing Element, prepared by The Planning Center, dated November 1, 2005.

City of San Bernardino General Plan, Chapter 4, Economic Development Element, prepared by The Planning Center, dated November 1, 2005.

City of San Bernardino General Plan, Chapter 5, Community Design Element, prepared by The Planning Center, dated November 1, 2005.

Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report, prepared by The Planning Center, dated September 30, 2005.

Southern California Association of Governments, *2008 Regional Transportation Plan, Growth Forecasting*, May 8, 2008, http://www.scag.ca.gov/forecast/downloads/excel/ RTP07_CityLevel.xls, accessed April 5, 2010.

State of California, Department of Finance, E-*5 Population and Housing Estimates for Cities, Counties and the State, 2001-2009, with 2000 Benchmark*. Sacramento, California, May 2008.

U.S. Census Bureau, Census 1990 and 2000.

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SECTION 5.3
AESTHETICS

5.3 AESTHETICS

This section evaluates the visual quality of the City of San Bernardino, particularly within the Project Area, and assesses the potential for visual impacts associated with implementation of the proposed project. Where significant impacts are identified, mitigation measures are provided to reduce these impacts to a less than significant level.

Difficulties arise in the evaluation of visual quality and the degree of impact that may result from visual change. This is because few objectives or quantitative standards exist to analyze visual quality and individuals respond differently to changes in the visual environment. What may be considered to be an adverse visual condition to one person may represent an improved visual scene to another. The evaluation of aesthetic impacts can be termed a subjective exercise due to widely varying personal perceptions. Nevertheless, potentially adverse aesthetic impacts are evaluated herein based on the change in the existing character and quality within the Project Area and the surrounding vicinity.

5.3.1 REGULATORY SETTING

CALIFORNIA REDEVELOPMENT LAW

Definition of Blight

Community Redevelopment Law (*CRL*) Sections 33030 through 33039, describe the conditions that constitute blight in a redevelopment project area. A blighted area is one that necessitates the creation of a redevelopment project area, because the combination of conditions in an area produce a burden on the community, and cannot be alleviated by private enterprise, governmental action, or both, without redevelopment.

CRL Section 33030 defines a blighted area as one that contains both of the following:

1. An area that is predominantly urbanized, and the combination of physical and economic blighting conditions is so prevalent and so substantial that it causes a reduction of, or lack of, proper utilization of the area to such an extent that it constitutes a serious physical and economic burden on the community that cannot reasonably be expected to be reversed or alleviated by private enterprise or governmental action, or both, without redevelopment.

2. An area characterized by one or more physical conditions of blight and one or more economic conditions of blight as set forth in subdivisions (a) and (b) of CRL Section 33031.

A blighted area that meets the conditions above can also be characterized by the existence of inadequate public improvements. *CRL* Sections 33035 and 33036 contain legislative findings and declarations that explain the effect that blighted areas have on project area inhabitants and property owners. Blighted areas create physical and economic liabilities to the community that require redevelopment in order to protect the health, safety, and general welfare of the public. Blighted areas disproportionately impact community resources such as police and fire services.

CITY OF SAN BERNARDINO GENERAL PLAN

The *General Plan* Land Use and Community Design Elements contain policies related to aesthetics, lighting, and glare.

CITY OF SAN BERNARDINO DEVELOPMENT CODE

The City of San Bernardino's *Development Code* (*Title 19* of the City of San Bernardino *Municipal Code*) promotes the public health, safety, general welfare and preserves and enhances the aesthetic quality of the City by providing regulations to ensure an appropriate mix of land uses is developed in an orderly manner.

The *Development Code* establishes several zoning categories in order to classify, regulate, restrict and segregate the uses of lands and buildings, to regulate and restrict the height and bulk of buildings, to regulate the area of yards and other open spaces around buildings and to regulate the density of the population. For each zoning category, permitted land uses are identified as well as several development standards including setbacks, building heights, lot area, and floor area ratio.

5.3.2 ENVIRONMENTAL SETTING

REDEVELOPMENT PROJECT AREAS

The City is located within the Inland Empire (Riverside and San Bernardino Counties), approximately 60 miles east of Los Angeles, and 55 miles west of Palm Springs. The City and surrounding cities are highly developed and urbanized with similar layout, density, and character. The project proposes to merge the following seven existing Redevelopment Project Areas into one merged area: Central City North, Southeast Industrial Park, Tri-City, South Valle, and Merged Central City Project (Meadowbrook/ Central City, Central City East, and Central City South). The Project Area is generally located east of Interstate 215 Freeway, including downtown San Bernardino. Each of the seven Project Areas is described in detail in Section 3.0, Project Description.

SCENIC RESOURCES

According to the *General Plan*, the San Bernardino Mountains form the City's northern boundary and serve as the primary backdrop for the residents of the City of Bernardino. The San Bernardino Mountains reach an elevation of 4,237 feet above mean sea level (amsl) at Arrowhead Peak. Just to the west of Arrowhead Peak is Marshall Peak, which climbs to an elevation of 4,003 feet (amsl). The Shandin Hills, an expanse of relatively smaller hills located just south of California State University San Bernardino (CSUSB), rise to an elevation of 1,717 feet (amsl) on Little Mountain. This area is not within the Project Area.

The biological environment within the City and throughout the region has been highly modified from its original, pristine condition – albeit some portions still remain in a relatively untouched and ecologically valuable state. Rivers, creeks, and washes within the City provide a visually pleasing quality, particularly along the Santa Ana River as it meanders through the southern portion of the City. Similarly, Warm Creek, once a year-round stream, creates a unique natural

community in the northern portion of the City. Other areas identified as sensitive visual resources include Kendall Hills, Lytle Creek wash, Badger Canyon, Bailey Canyon, and Waterman Canyon.

The Arrowhead Springs Specific Plan area is also considered one of the key visual resources within the City based on its remote setting, diverse topography, and large expanses of open space. One of the salient features of Arrowhead Springs is the unique geologic landform in the shape of an arrowhead along the slopes, above the historic Arrowhead Springs Hotel. This Specific Plan area and its key visual features are located more than four miles north of the Project Area.

The City of San Bernardino's unique neighborhoods provide aesthetic character and represent the aesthetic foreground (closest viewing area) within the City of San Bernardino according to the *General Plan*. In addition, the City's downtown area creates a distinctive aesthetic environment, partly because it includes many historic structures.

VISUAL CHARACTER

Blighted Conditions

A field survey was conducted in September 2009 to assess the conditions of structures and lots, record the occurrence of vacant/underutilized buildings, and locate inadequately sized parcels within the Project Area. The field survey was intended to obtain a broad-spectrum understanding of the blighting conditions present in the Project Area. Additional research and investigation beyond the field survey were also undertaken. Wherever possible, instances of blight were mapped to illustrate the location and severity of a particular condition (refer to Exhibit A-4, A-5, and A-6 *Blighted Parcels*, of the *San Bernardino Merged Area A Merger and Amendments Preliminary Report*). Photos and descriptions of the blighted conditions observed during the field survey are presented with the *Merger and Amendments Preliminary Report*.

<u>Key Issues Related to Blight Conditions</u>

The key issues related to the physical conditions of blight remaining in the Project Area are described below:

- A total of 296 serious code violation occurred in the Project Area from July 1, 2008 to January 9, 2010. The most-prevalent types of serious code violation in the Project Area are trash, debris, and storage (35 percent) and condition of structures (27 percent).
- As of January 9, 2010, 53 percent of serious code violations occurring since July 1, 2008 remain open in the Project Area. This figure is considerably higher when compared to the rest of the City of which only 38 percent of violations remain open.
- There are 15 percent more unmitigated serious violations per parcel in the Project Area than in the rest of the City.
- The field survey identified 148 parcels, or 8 percent of developed parcels, that were seriously dilapidated and deteriorated in the Project Area. The South Valle Project Area is the most severely impacted by dilapidated and deteriorated structures (23 percent of the parcels).

- Approximately 24 percent of all structures in the Project Area are 40 or more years old. Of those, 19 percent were found to be seriously dilapidated and deteriorated.
- Currently in the Project Area, 22 percent of residential parcels, 18 percent of commercial parcels, and 34 percent of industrial parcels do not meet the minimum lot size requirements. In total, 479 lots (22 percent) in the Project Area parcels do no meet minimum lot size requirements.
- Out of the 479 lots that do not meet minimum lot size requirements, 231 (48 percent) are in multiple ownership. Of the 269 inadequately sized commercially zoned parcels in the Project Area, 107 (40 percent) are in multiple ownership. Similarly, 58 (44 percent) of the 131 inadequately sized industrially zoned parcels, and 66 (68 percent) of the 97 inadequately sized residentially zoned parcels are in multiple ownership.
- The Project Area office lease rates are 36 percent less than surrounding areas. Office vacancy rates for the City, inclusive of the Project Area, are 35.6 higher than surrounding areas.
- The Project Area industrial lease rates are greater than surrounding areas, but industrial buildings have a 36.1 percent vacancy rate as a result.
- The Project Area contains 66.9 percent of all active and 49.4 of all inactive hazardous waste sites in the City. The Project Area also contains two of the City's eleven superfund sites.[1]

LIGHT AND GLARE

Lighting effects are associated with the use of artificial light during the evening and nighttime hours. There are two primary sources of light: light emanating from building interiors passing through windows and light from exterior sources (i.e. street lighting, building illumination, security lighting, parking lot lighting, and landscape lighting). Light introduction can be a nuisance to adjacent residential areas and diminish the view of the clear night sky. Uses such as residences and hotels are considered light sensitive since occupants have expectations of privacy during evening hours and may be subject to disturbance by bright light sources. Light spillover is typically defined as the presence of unwanted light on properties adjacent to the property being illuminated. With respect to lighting, the degree of illumination may vary widely depending on the amount of light generated, height of the light sources, presence of barriers or obstructions, type of light source and weather conditions.

Glare is primarily a daytime occurrence caused by the reflection of sunlight or artificial light by highly polished surfaces such as window glass or reflective materials and, to a lesser degree, from broad expanses of light-colored surfaces. Perceived glare is the unwanted and potentially objectionable sensation as observed by a person as they look directly into the light sources of a luminaire. Daytime glare generation is common in urban areas and is typically associated with buildings with exterior facades largely or entirely comprised of highly reflective glass. Glare can also be produced during evening and nighttime hours by the reflection of artificial light sources such as automobile headlights. Glare-sensitive uses include residences, hotels, transportation corridors, and aircraft landing corridors.

[1] *Preliminary Report: San Bernardino Merged Area A Merger and Amendments*.

Currently, the City is approximately 80.6 percent built out and the aesthetic character of the City is highly urbanized. The Project Area is similar in character to the rest of the City and vacant parcels account for approximately 265 acres (approximately 9 percent) of the Project Area. The majority of light and glare sources present within the City are associated with the residential, industrial, commercial, school, and recreational land uses. Additionally, other sources of light within the City include: traffic signals, street lamps, security lighting, and vehicle lights on roadways.

SHADE AND SHADOW

Shade and shadow pertains to the blockage of direct sunlight by buildings, which affect adjacent properties. Shading is an important environmental issue, because the users or occupants of certain land uses, such as residential, recreational, churches, schools, outdoor restaurants, and pedestrian areas have expectations for direct sunlight and warmth from the sun. These land uses are termed as "shadow-sensitive."

The City of San Bernardino currently has many large structures, particularly within the downtown area, which cast shade or shadows. Although there are large structures within the City, there are very few high-density uses that cast shadow on adjacent residential uses.

5.3.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to aesthetics and light and glare. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Have a substantial adverse effect on a scenic vista as identified in the City's General Plan (refer to Section 8.0, Effects Found Not To Be Significant);;

- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway (refer to Section 8.0, Effects Found Not To Be Significant);

- Substantially degrade the existing visual character or quality of the site and its surroundings; and

- Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.3.4 PROJECT IMPACTS AND MITIGATION MEASURES

PROJECT GOALS RELATED TO AESTHETICS

Section 3.5 identifies the goals that implementation of the proposed project is to achieve. Goals specifically related to the aesthetics and visual qualities of the Project Area are restated below.

- Eliminate and prevent the spread of the conditions of blight, including but not limited to the following: underutilized properties and deteriorating buildings, incompatible and uneconomic land uses, deficient infrastructure and facilities, obsolete structures, parking deficiencies and other economic deficiencies, in order to create a more favorable environment for commercial, industrial, office, residential, and recreational development.

- Promote the economic development of the Project Area by providing an attractive, well-serviced, well-protected environment for residents and visitors.

- Implement design and use standards to assure high aesthetic and environmental quality, and provide unity and integrity to development within the Project Area

- Implement beautification activities to improve the visual image of the City as well as reinforce existing assets and expand the potential of the Project Area to encourage private investment.

- Encourage the restoration and reuse of older, historic structures which add to the City's character and sense of community identity.

REDEVELOPMENT ACTIONS RELATED TO AESTHETICS

Section V (500), Redevelopment Actions of the *Merged, Amended, and Restated Development Plan for the San Bernardino Merged Redevelopment Project Area A*, includes 25 actions that are intended to eliminate and prevent the recurrence of blight and spur economic revitalization. The following eight actions would lead to the aesthetic improvement of the Project Area:

1. Rehabilitating, altering, remodeling, improving, modernizing, clearing, or reconstructing buildings, structures and improvements.

2. Rehabilitating, preserving, developing or constructing affordable housing in compliance with State law.

7. Acquiring, installing, developing, constructing, reconstructing, redesigning, planning, re-planning, or reusing streets, curbs, gutters, sidewalks, traffic control devices, utilities, flood control facilities and other public improvements and public facilities.

12. Providing for open space.

22. Preparing and carrying out plans from time to time for the improvement, rehabilitation, and redevelopment of blighted areas and creating a variety of economic development programs which will help build a stronger economic base within the Project Area.

23. Assisting businesses in the Project Area with sign and facade improvements and general rehabilitation by providing loans and grants.

24. Adopting specific design guidelines for projects to ensure a consistent design theme which will guide rehabilitation, new development, developers, architects, and builders.

25. Developing programs to assist owners in the Project Area with the preservation and rehabilitation of historically significant buildings and sites.

PROPOSED PROJECT – PROJECTS AND PROGRAMS TO ELIMINATE BLIGHT

Section 3.6, Project Characteristics, provides a detailed description of projects and programs the Agency would undertake to eliminate blight throughout the Project Area, including along key corridors and at prime opportunity sites. The following projects and programs pertain to aesthetics, and are summary statements of the descriptions in Section 3.6.

Public Facilities and Infrastructure Improvements

These projects and programs involve the replacement and upgrading of public facilities and infrastructure and would contribute to an enhanced aesthetic environment throughout the Project Area:

- Street beautification, landscaping, medians, and banners
- Parks and recreation/community centers
- Bikeways and trails

Land Use Planning to Guide Redevelopment

These projects and programs involve updates to land use goals, plans, and policies needed to effectively implement the Agency's redevelopment activities. These updates may address, among other issues, community design and aesthetics. Examples include, but are not limited to:

- General Plan and zoning updates
- Preparation of a Downtown Core Specific Plan or Overlay
- Specific plans

Infill Development Projects

These projects and programs involve site clearance, land assembly, and development of infill projects. These efforts would contribute to the elimination of blight and underutilized or substandard structures and/or vacant parcels.

- Property acquisition
- Site preparation (including on and off-site public facility and infrastructure improvements)

Economic Development Activities

These projects and programs seek to complement the Agency's goals for urban revitalization by supporting economic development activities to expand and attract businesses to the Project Area, and provide small business assistance and development. Redevelopment activities related to aesthetic improvements and redevelopment investment (which may indirectly foster community design improvements) include:

- Facade improvement programs
- Business expansion and attraction programs
- Enterprise Zone administration
- Small Business Administration 7(a) Loan Program

SHORT-TERM VISUAL CHARACTER

◆ **GRADING AND CONSTRUCTION ACTIVITIES ASSOCIATED WITH DEVELOPMENT AS A RESULT OF IMPLEMENTING THE PROPOSED PROJECT COULD TEMPORARILY DEGRADE THE EXISTING VISUAL CHARACTER OR QUALITY OF THE DEVELOPMENT SITES AND THEIR SURROUNDINGS.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Short-term construction-related activities associated with development as a result of implementing the proposed project would be similar to that under the *General Plan*. Short-term construction-related activities associated with development would temporarily alter the existing visual character of the development sites and their surroundings. Graded surfaces, construction materials, equipment, and truck traffic would be visible. Soil would be stockpiled and equipment for grading activities would be staged at various locations. The timing of construction-related activities at a particular fixed location would vary depending on the scale and nature of the future development project. Construction-related activities are not considered significant, because they are anticipated to be short-term. Additionally, it is anticipated that construction activities would involve removing and/or rehabilitating dilapidated buildings and infrastructure, which would result in a beneficial impact. Further review may be necessary on a project-by-project basis to evaluate site-specific construction-related impacts. Notwithstanding, all development would be subject to compliance with the City's *Municipal Code*. Additionally, Mitigation Measures AES-1 and AES-2 are recommended to further minimize potential construction-related visual impacts. Thus, impacts would be less than significant in this regard.

General Plan Goals and Policies:

LAND USE ELEMENT

Goal 2.2 **Promote development that integrates with and minimizes impacts on surrounding land uses.**

Policy 2.2.1 Ensure compatibility between land uses and quality design through adherence to the standards and regulations in the Development Code and policies and guidelines in the Community Design Element.

Mitigation Measures:

AES-1 Construction materials and equipment staging areas shall be located away from residential or other sensitive uses and, when feasible, appropriate screening (i.e., temporary fencing with opaque material) shall be used to buffer views of the construction site. Staging locations shall be indicated on Final Development Plans and Grading Plans.

AES-2 All construction-related lighting shall include shielding in order to direct lighting down and away from residential or other sensitive uses and consist of the minimal wattage necessary to provide safety at the construction site. A construction safety lighting plan shall be submitted to the City for review concurrent with Grading Permit application.

Level of Significance After Mitigation: Less Than Significant Impact.

LONG-TERM VISUAL CHARACTER

- **DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD DEGRADE THE EXISTING VISUAL CHARACTER OR QUALITY OF THE DEVELOPMENT SITES AND THEIR SURROUNDINGS.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Physical Blighting Issues

Physical blighted conditions are currently prevalent within the Project Area, including unsafe and unhealthy buildings, dilapidation and deterioration, faulty or inadequate sewer and water utilities, undersized parcels, and undersized lots in multiple ownership.

Instances of dilapidation and deterioration detract from the overall aesthetic quality of the Project Area. The Project Area demographics have proven that the capacity of residents to reinvest in their properties is hindered by a high poverty rate, low educational attainment, and low median household income. There is also a high percentage of renter occupied units in the Project Area. Research indicates that property stakeholder or absentee landlords typically take minimal care of their rental properties, which leads to the dilapidation and deterioration of structures, further diminishing the aesthetic quality of the Project Area. If not addressed, deterioration could continue perpetuating dilapidation of additional properties. With implementation of the proposed project, however, redevelopment would provide the tools and funding to offer incentives for property owners to invest in their properties. Redevelopment would also create avenues to hold those property owners accountable for the maintenance and upkeep of their properties.

The lack of infrastructure within the Project Area also deters developers because of costly improvements that detract from project profitability and thus hinders development. Due to the high cost of infrastructure improvements, it is unlikely that developers and residents will be able to eliminate these deficiencies on their own without redevelopment assistance. Tax increment revenue generated in the Project Area could be used to fund such infrastructure improvements.

Inadequately sized parcels are also a major problem in the Project Area; over one-fifth of parcels exhibit this condition. The economic viability of undersized residential, industrial, and commercial zoned parcels are significantly hindered by their size. Furthermore, 48 percent of these parcels are in multiple ownership making it difficult for the private sector to assemble properties suitable for development. With implementation of the proposed project, redevelopment tools would be used to help business and property owners assemble properties that support new development that is economically feasible, while improving building conditions in the Project Area. With the improvement of underutilized parcels and dilapidated structures, beneficial aesthetic impacts would occur within the Project Area.

Visual Character/Quality Conflicts

The project proposes to merge seven Project Areas into one Project Area. Permitted land uses within the Project Area would be those permitted by the *General Plan*, as it now exists or may be amended in the future. Based upon the *General Plan* land use designations and growth projections, development in the Project Area could result in an additional 1,143 dwelling units, and 6,195,718 square feet of non-residential development over existing conditions. However, this anticipated growth has been planned for within the *General Plan*.

Overall, implementation of the proposed project would improve the visual character and quality of the Project Area. Currently, the Project Area is developed with a mix of industrial, commercial, school/civic/institutional, public facilities uses, residential uses (single- and multi-family housing), and vacant land. As noted, many of the existing structures are dilapidated and infrastructure and public improvements are deteriorated. Visually, many of the structures are deteriorated and suggest a lack of investment in the area.

Housing rehabilitation programs would assist in maintaining older homes and improve and maintain existing housing stock in the Project Area. To further improve the visual character and quality of the Project Area, the proposed project includes community beautification and visual blight removal programs that would involve streetscape improvements.

General project activities include various forms of assistance that would allow for and support development and redevelopment activities within the Project Area. Development assistance would ensure the financial feasibility of projects and encourage commercial expansion, industrial renewal, neighborhood improvement and other types of rehabilitation activities. Housing assistance would provide for the development of new and improvements to existing low income and moderate income housing. Relocation assistance would allow for the relocation of persons, businesses and other entities to allow for the removal of dilapidated buildings, nonconforming uses and other hazards within the Project Area.

The proposed project focuses on guiding redevelopment activities and opportunities within the Project Area and encouraging the development and revitalization of specific areas. The proposed project recognizes the importance of the visual character and overall image of the City

by establishing programs that would assist in the removal of blight, provide infrastructure improvements, and encourage high quality development within the Project Area. Although the character of the Project Area would be altered, the changes and improvements proposed would result in a beneficial impact.

Through the City's development review process, future development projects would be evaluated to determine the appropriate permits for authorizing their use and the conditions for their establishment and operation. The proposed improvements would be subject to compliance with the development standards and regulations identified in the City's *Municipal Code*. Following compliance with the *Municipal Code*, it is anticipated that development activities associated with implementation of the proposed project would result in less than significant impacts to the existing visual character of the development sites and their surroundings. Further review may be necessary on a project-by-project basis to evaluate site-specific impacts to visual character.

Compliance with goals and policies identified in the *General Plan* would further support and enhance the aesthetic quality of the Project Area. Future development projects within the Project Area would be evaluated to determine their ability to meet the goals and/or policies of the *General Plan* in place at the time. The Land Use and Community Development Elements include goals and policies that address the community's image and character, including that new development is visually compatible with surrounding uses. Additionally, future development projects within the Project Area would undergo environmental review pursuant to CEQA on a project-by-project basis to ensure that potential long-term visual character impacts would be reduced to a less than significant level. Implementation of the proposed project would not substantially degrade the existing visual character or quality of the Project Area. However, Mitigation Measure AES-3 has been included to ensure that visual impacts of individual projects are reviewed. Thus, a less than significant impact would occur in this regard.

General Plan Goals and Policies:

LAND USE ELEMENT

Goal 2.1 **Preserve and enhance San Bernardino's unique neighborhoods.**

Policy 2.1.1 Actively enforce development standards, design guidelines, and policies to preserve and enhance the character of San Bernardino's neighborhoods.

Policy 2.1.2 Require that new development with potentially adverse impacts on existing neighborhoods or residents such as noise, traffic, emissions, and storm water runoff, be located and designed so that quality of life and safety in existing neighborhoods are preserved.

Policy 2.1.3 Encourage future development to provide public spaces that foster social interaction.

Policy 2.1.4 Provide assistance in the form of grants, loans, home improvement efforts, coordinated code and law enforcement, public right-of-way maintenance and enhancement, and trash collection to help improve San Bernardino's residential neighborhoods.

Policy 2.1.5 Ensure compliance with maintenance and development standards through the rigorous enforcement of Code Enforcement and Safety standards.

Goal 2.2 Promote development that integrates with and minimizes impacts on surrounding land uses.

Policy 2.2.1 Ensure compatibility between land uses and quality design through adherence to the standards and regulations in the Development Code and policies and guidelines in the Community Design Element.

Policy 2.2.2 Require new uses to provide mitigation or buffers between existing uses where potential adverse impacts could occur, including, as appropriate, decorative walls, landscape setbacks, restricted vehicular access, enclosure of parking structures to prevent sound transmission, and control of lighting and ambient illumination.

Policy 2.2.3 Sensitively integrate regionally beneficial land uses such as transportation corridors, flood control systems, utility corridors, and recreational corridors into the community.

Policy 2.2.4 Hillside development and development adjacent to natural areas shall be designed and landscaped to preserve natural features and habitat and protect structures from the threats from natural disasters, such as wildfires and floods.

Policy 2.2.5 Establish and maintain an ongoing liaison with Caltrans, the railroads, and other agencies to help minimize impacts and improve aesthetics of their facilities and operations; including possible noise walls, berms, limitation on hours and types of operations, landscaped setbacks and decorative walls along its periphery.

Policy 2.2.6 Establish and maintain an ongoing liaison with the County of San Bernardino to conform development projects within the City's sphere of influence to the City's General Plan.

Policy 2.2.7 Control the development of industrial and similar uses that use, store, produce or transport toxics, air emissions, and other pollutants.

Policy 2.2.10 The protection of the quality of life shall take precedence during the review of new projects. Accordingly, the City shall utilize its discretion to deny or require mitigation of projects that result in impacts that outweigh benefits to the public.

Goal 2.3 Create and enhance dynamic, recognizable places for San Bernardino's residents, employees, and visitors.

Policy 2.3.1 Commercial centers, open spaces, educational facilities, and recreational facilities should be linked to residential neighborhoods.

Policy 2.3.2 Promote development that is compact, pedestrian-friendly, and served by a variety of transportation options along major corridors and in key activity areas.

Policy 2.3.3 Entries into the City and distinct neighborhoods should be well defined or highlighted to help define boundaries and act as landmarks.

Policy 2.3.4 Develop a cohesive theme for the entire City as well as sub-themes for neighborhoods to provide identity, help create a sense of community, and add to the City's personality.

Policy 2.3.5 Capitalize on cultural events, such as the Route 66 Rendezvous, to help market and build a distinct identity for the City.

Policy 2.3.6 Circulation system improvements shall continue to be pursued that facilitate connectivity across freeway and rail corridors.

Policy 2.3.7 Improvements shall be made to transportation corridors that promote physical connectivity and reflect consistently high aesthetic values.

Goal 2.4 Enhance the quality of life and economic vitality in San Bernardino by strategic infill of new development and revitalization of existing development.

Policy 2.4.1 Quality infill development shall be accorded a high priority in the commitment of City resources and available funding.

Policy 2.4.2 Continue to provide special incentives and improvement programs to revitalize deteriorated housing stock, residential neighborhoods, major business corridors, and employment centers.

Policy 2.4.3 Where necessary to stimulate the desired mix and intensity of development, land use flexibility and customized site development standards shall be achieved through various master-planning devices such as specific plans, planned development zoning, and creative site planning.

Goal 2.5 Enhance the aesthetic quality of land uses and structures in San Bernardino.

Policy 2.5.1 Use code enforcement in coordination with all relevant City departments to reverse deterioration and achieve acceptable levels of development quality. These efforts should focus on structural maintenance and rehabilitation, debris and weed removal, property maintenance, and safety.

Policy 2.5.4 Require that all new structures achieve a high level of architectural design and provide a careful attention to detail.

Policy 2.5.5 Provide programs that educate residential and commercial property owners and tenants regarding methods for the maintenance and upkeep of their property.

Policy 2.5.6 Require that new developments be designed to complement and not devalue the physical characteristics of the surrounding environment, including consideration of:

- The site's natural topography and vegetation;
- Surrounding exemplary architectural design styles;
- Linkages to pedestrian, bicycle, and equestrian paths;
- The use of consistent fencing and signage;
- The provision of interconnecting greenbelts and community amenities, such as clubhouses, health clubs, tennis courts, and swimming pools;
- The use of building materials, colors, and forms that contribute to a "neighborhood" character;
- The use of extensive site landscaping;
- The use of consistent and well designed street signage, building signage, and entry monumentation;
- A variation in the setbacks of structures;
- The inclusion of extensive landscape throughout the site and along street frontages;
- The articulation of building facades to provide interest and variation by the use of offset planes and cubic volumes, building details, balconies, arcades, or recessed or projecting windows, and other techniques which avoid "box"-like structures;
- The integration of exterior stairways into the architectural design;
- The screening of rooftop mechanical equipment;
- The use of a consistent design through the use of unifying architectural design elements, signage, lighting, and pedestrian areas;
- The provision of art and other visual amenities;
- The inclusion of awnings, overhangs, arcades, and other architectural elements to provide protection from sun, rain, and wind; and
- The location of parking at the rear, above or below the ground floor of non-residential buildings to enhance pedestrian connectivity.

Goal 2.6 Control development and the use of land to minimize adverse impacts on significant natural, historic, cultural, habitat, and hillside resources.

Policy 2.6.1 Hillside development and development adjacent to natural areas shall be designed and sited to maintain the character of the City's significant open spaces and historic and cultural landmarks.

Policy 2.6.2 Balance the preservation of plant and wildlife habitats with the need for new development through site plan review and enforcement of the California Environmental Quality Act (CEQA).

Policy 2.6.3 Capitalize on the recreational and environmental resources offered by the Santa Ana River and Cajon Wash by requiring the dedication and development of pedestrian and greenbelt linkages.

Goal 2.7 Provide for the development and maintenance of public infrastructure and services to support existing and future residents, businesses, recreation, and other uses.

Policy 2.7.3 Continue to explore opportunities, such as water themed uses, to financially capitalize on the City's water resources to enhance the City's image.

Goal 2.10 Actively apply, enforce, and utilize the General Plan in the day-to-day activities of the City.

Policy 2.10.3 Ensure that residents of San Bernardino have the opportunity to provide input to the determination of future land use development that may significantly affect the character and quality of life.

COMMUNITY DESIGN ELEMENT

Goal 5.1 Create conspicuous gateways at key points in the community to identify and distinguish San Bernardino.

Policy 5.1.1 Provide improvements along principal streets at the City boundary that clearly identify major entries to the City. Such improvements may include signage, landscaping, vertical pylons, and/or other distinctive treatments.

Policy 5.1.2 Designate and provide monumentation for important primary and secondary entry points into the City, especially at the following locations:

- Primary Entryways: Waterman at Hospitality Lane; State Route 18 at National Forest boundary; State Route 330 (City Creek Road) at Highland Avenue; I-215 Freeway at Shandin Hills; I-215 Freeway at Cable Wash; and I-215 Freeway at Inland Center Drive off-ramps.
- Secondary Entryways: 2nd Street at I-215 Freeway; Highland at Lytle Creek Wash (east side); Baseline at Lytle Creek Wash (east side); Santa Fe Railroad Passenger Terminal; 5th Street at Nunez Park; 5th Street at Waterman; Freeway off-ramps.

Policy 5.1.3 Prepare an entry signage program that would denote Primary and Secondary entries to the City through informational lettering, the City logo, photo-silkscreens, banners, and/or graphics.

Policy 5.1.4 Locate major accent trees at entry locations and intersections. Species should be of a "grand" scale to differentiate these key locations (such as palms, canary island pines, or poplars).

Policy 5.1.5 Develop a Citywide program of public art to provide unifying themes for gateways.

Goal 5.2 Attractively design, landscape, and maintain San Bernardino's major corridors.

Policy 5.2.1 Establish and implement a comprehensive citywide streetscape and landscape program for those corridors identified on General Plan Figure CD-1 and includes the following right-of-way improvements:

- Street trees
- Street lighting
- Streetscape elements (sidewalk/crosswalk paving, street furniture)
- Public signage

Policy 5.2.2 Require that landscaping be adequately maintained and replaced if removed due to damage or health.

Policy 5.2.3 Require that all new street landscape incorporate an irrigation system to provide proper watering.

Policy 5.2.4 Screen public facilities and above-ground infrastructure support structures and equipment, such as electrical substations and water wells, through sensitive site design, appropriately scaled landscaping, undergrounding of utilities, and other methods of screening (e.g., cell tower stealthing).

Policy 5.2.5 Use landscaping and facade articulation to break up long stretches of walls associated with residential development along major corridors. Ensure implementation of sign regulations, which address issues of scale, type, design, materials, placement, compatibility, and maintenance.

Policy 5.2.7 Provide for the use of well-designed and placed banners for City events, holidays, and other special occasions.

Policy 5.2.8 Provide for the use of kiosks or other street furniture along the City's streets.

Policy 5.2.9 Along major corridors, continue to pay special attention to design features that include screening, berms, fencing, and landscaping for outdoor storage and handling areas.

Policy 5.3.1 Utilizing the Neighborhood Associations to develop a program to identify unique design features and create design themes for distinct areas of the City.

Goal 5.3 **Recognize unique features in individual districts and neighborhoods and develop a program to create unifying design themes to identify areas throughout the City.**

Policy 5.3.2 Distinct neighborhood identities should be achieved by applying streetscape and landscape design, entry treatments, and architectural detailing standards, which are tailored to each particular area and also incorporate citywide design features.

Policy 5.3.3 A well-integrated network of bike and pedestrian paths should connect residential areas to schools, parks, and shopping centers.

Policy 5.3.4 Enhance and encourage neighborhood or street identity with theme landscaping or trees, entry statements, enhanced school or community facility identification, and a unified range of architectural detailing.

Policy 5.3.5 Create entry improvements to help identify distinct districts; these elements could consist of monument pylons, freestanding banners on poles, banners hung from existing light or marbelite standards (subject to agreement with the utility company) or graphic elements hung from or attached to private buildings.

Policy 5.3.6 Provide for streetscape improvements, landscape and/or signage that uniquely identify architecturally or historically significant residential neighborhoods.

Policy 5.3.7 Establish a program to select and install streetlights that reinforce the character of the particular district.

Goal 5.4 **Ensure individual projects are well designed and maintained.**

Policy 5.4.1 Aggressively apply and enforce citywide landscape and development standards in new and revitalized development throughout the City.

Policy 5.4.3 Ensure that the design of all public facilities fits well into their surroundings and incorporates symbolic references to the City, including its past and/or present, as appropriate.

Goal 5.5 **Develop attractive, safe, and comfortable single-family neighborhoods.**

Policy 5.5.1 Require new and infill development to be of compatible scale and massing as existing development yet allow the flexibility to accommodate unique architecture, colors, and materials in individual projects.

Policy 5.5.2 Improve the pedestrian atmosphere of the street by orienting new homes to the street with attractive front porches, highly visible street facades, and garages located in the rear of the property.

Policy 5.5.3 Maintain, improve and/or develop parkways with canopy street trees, providing shade, beauty and a unifying identity to residential streets.

Policy 5.5.4 Setback garages from the street and minimize street frontage devoted to driveways and vehicular access.

Policy 5.5.5 Provide continuous sidewalks and links to nearby community facilities and retail centers.

Policy 5.5.6 Ensure a variety of architectural styles, massing, floor plans, façade treatment, and elevations to create visual interest.

Policy 5.5.7 In residential tract developments, a diversity of floor plans, garage orientation, setbacks, styles, building materials, color and rooflines shall be preferred over more uniform design patterns.

Goal 5.6 Ensure that multi-family housing is attractively designed and scaled to contribute to the neighborhood and provide visual interest through varied architectural detailing.

Policy 5.6.1 Reduce the visual impact of large-scale, multi-family buildings by requiring articulated entry features, such as attractive porches and detailed facade treatments, which create visual interest and give each unit more personalized design.

Policy 5.6.2 Discourage visually monotonous, multi-family residences by incorporating different architectural styles, a variety of rooflines, wall articulation, balconies, window treatments, and varied colors and building materials on all elevations.

Policy 5.6.3 Reduce the visual impact of parking areas by utilizing interior courtyard garages, parking structures, subterranean lots, or tuck-under, alley-loaded designs.

Policy 5.6.4 Provide usable common open space amenities. Common open space should be centrally located and contain amenities such as seating, shade and play equipment. Private open space may include courtyards, balconies, patios, terraces and enclosed play areas.

Policy 5.6.5 Provide convenient pedestrian access from multi-family development to nearby commercial centers, schools, and transit stops.

Goal 5.7 Develop attractive and safe commercial, office, and industrial projects that are creatively designed and intelligently sited.

Policy 5.7.1 Ensure the provision of people-gathering places and street level amenities, such as mini-plazas, courtyards, benches, movable seating, shade, trash receptacles, water fountains awnings large storefront windows, arcades, small sitting areas, and accent landscaping.

Policy 5.7.2 Orient buildings toward major thoroughfares, sidewalks, and public spaces so that parking is convenient but not visually dominating.

Policy 5.7.3 Maintain architectural interest and variety through varied rooflines, building setbacks, and detailed façade treatments and maintain a strong sense of project identity through similarities in façade organization, signage, landscaping, material use, colors, and roof shapes.

Policy 5.7.4 The size, colors, type, materials, and design of signs shall be related to the scale of the building or development and its relation to the street.

Policy 5.7.5 Parking areas shall provide, where practical, pedestrian pathways for safe access to shopping and activity areas that are defined by landscaped planters and incorporated into the parking lot design.

Policy 5.7.6 Encourage architectural detailing, which includes richly articulated surfaces and varied façade treatment, rather than plain or blank walls.

Policy 5.7.7 Minimize the visual impact of surface parking lots by locating them behind buildings, away from the street or through perimeter and interior landscaping, berming, and small-scale fencing.

Policy 5.7.8 Design public plazas and spaces that are both comfortable and convenient. They should be well defined by surrounding buildings, located near the street for visual contact and convenience, contain abundant seating opportunities, and incorporate amenities such as distinctive focal points, public art, ample shade, and eating and entertainment possibilities.

Policy 5.7.9 Ensure that the scale and massing of office, commercial, and industrial uses are sensitive to the context of surrounding residential development.

Policy 5.7.10 Lighting should provide for safety and to highlight features of center but not shine directly onto neighboring properties or into the eyes of motorists.

Policy 5.7.11 Loading bays should be screened by walls and landscaping and oriented away from major streets and entries.

Policy 5.7.12 Install new streetlights in commercial districts that are pedestrian-oriented, attractively designed, compatible in design with other street furniture, and provide adequate visibility and security.

Mitigation Measures:

AES-3 Visual simulations depicting before (existing conditions) and after (with project conditions) representations of the proposed buildings and landscaping shall be required for future development projects, if deemed necessary by the City. The visual simulations are intended to convey an impression of the location, scale, and massing of the buildings to be constructed on a project site and to demonstrate the potential effects of the project. The viewpoint locations for visual simulation shall be determined by the Planning Division.

Level of Significance after Mitigation: Less Than Significant Impact.

LIGHT AND GLARE

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD CREATE A NEW SOURCE OF SUBSTANTIAL LIGHT OR GLARE WHICH COULD ADVERSELY AFFECT DAY OR NIGHTTIME VIEWS IN THE AREA.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: The proposed project is predominantly characterized as urbanized land that contains various forms of on-site and off-site lighting. As part of the proposed project, lighting would be included for activity areas involving nighttime uses, parking, security lighting around structures, and interiors of buildings. Project implementation could result in development at a greater intensity/activity level than currently exists.

Development of the proposed uses would introduce new sources of light and glare, potentially affecting views in the area. During evening hours, street lights, security lighting, recreational lighting, and lighting from buildings, if not adequately focused or screened, may cause spillover lighting and glare that may present a nuisance to sensitive receptors (i.e. residential, school, and/or medical office uses). This is especially significant in areas where sensitive receptors are adjacent or in close proximity to either commercial or industrial uses.

The City of San Bernardino is largely built out, therefore, a large majority of light and glare sources are currently in place. Redevelopment potential within the Project Area includes:

- 5,676,674 square feet of commercial (retail, general, office, lodging) uses;
- 518,916 square feet of industrial uses; and,
- 1,143 multi-family residential units.

This additional development could introduce new light and glare sources, however a majority of this new development would occur within properties currently developed. Of the 460 acres of land currently identified as vacant within the Project Area, approximately 265 acres is considered developable. Implementation of the proposed project would effectively increase the amount of area developed within this part of the City by 9 percent. However, this new development would be required to adhere to all applicable *General Plan* goals and policies and *Development Code* standards pertaining to light and glare, which are designed to reduce impacts associated with new development projects. This additional amount of development (and light and glare) is not anticipated to generate a significant amount of light and glare in comparison to the anticipated levels analyzed in the *General Plan EIR*.

An increase in light and glare impacts associated with vehicular headlights could result from increased traffic volumes in the City as a result of this new development. However this new development is consistent with the General Plan 2030 buildout assumptions. As such, implementation of the proposed project is not anticipated to result in a significant noticeable increase in light from this light source. Therefore, impacts would be less than significant in this regard.

Glare impacts are typically related to the use of modern, highly reflective surfaces such as glass, acrylic, and broad, flat surfaces that are painted with highly reflective colors. New development within the Project Area would allow for developments at a predefined intensity described in the *General Plan*.

The proposed project includes a vision for the Downtown Core and key corridors within the Project Area. Large developments intended as a regional attraction could potential utilize significant amounts of lighting and incorporate lights directed into the sky in order to draw attention to the location from a distance. New or renovated structures could potentially be constructed with reflective materials, which could cause glare impacts to surrounding uses. Development within the designated Downtown Core and key proposed corridors would allow for residential development adjacent to commercial, industrial, and institutional uses.

The placement of sensitive receptors (i.e. residential uses) adjacent to commercial, industrial, and institutional areas could result in light and glare impacts. The proposed project and *General Plan* includes policies, programs, goals, and actions to reduce light and glare impacts between land uses. Additionally, subsequent development projects would be reviewed by the City to evaluate lighting and glare and ensure that the City's *Development Code*, *General Plan*, and other applicable local ordinances are met. Policies 5.7.10 and 5.7.12 of the *General Plan* regulates light emissions within the City. The Policy prohibits individuals from using light in a manner that would shine directly onto neighboring properties or into the eyes of motorists. Additionally, within the limits, restrictions, and controls established in the proposed project and stated above, the Agency would be authorized to establish development and design controls necessary for proper development of both private and public areas within the Project Area, including controls requiring projects within the Project Area to evaluate light and glare impacts. Compliance with the City's *Development* Code, *General Plan*, and Mitigation Measure AES-4 would reduce impacts related to light and glare to less than significant levels.

General Plan Goals and Policies:

Goal 5.7 **Develop attractive and safe commercial, office, and industrial projects that are creatively designed and intelligently sited.**

Policy 5.7.10 Lighting should provide for safety and to highlight features of center but not shine directly onto neighboring properties or into the eyes of motorists.

Policy 5.7.12 Install new streetlights in commercial districts that are pedestrian-oriented, attractively designed, compatible in design with other street furniture, and provide adequate visibility and security.

Mitigation Measures:

AES-4 Future development projects shall be designed with lighting installed in locations and orientations that minimize light spillover on adjacent residential or other sensitive uses. All onsite lighting shall utilize directional lighting techniques and low wattage bulbs that direct light downwards and minimize light spillover to adjacent residential or other sensitive uses, without compromising site safety or security. Lighting fixtures shall use shielding, if necessary, to prevent spill lighting on adjacent offsite uses.

Level of Significance after Mitigation: Less Than Significant Impact.

5.3.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS RELATED TO AESTHETICS, LIGHT AND GLARE, AND SHADE AND SHADOW.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Aesthetic impacts associated with implementation of the proposed project are primarily confined to local areas, as the City and surrounding cities are urbanized and nearly built out. Therefore, cumulative aesthetic impacts are primarily analyzed in terms of impacts within the City of San Bernardino.

As stated above, Cities surrounding San Bernardino are also developed and urbanized with similar density and character. New development projects that are built in scale, density, and character of existing land uses would further contribute to the urban character of the region. Future development projects would be required to comply with local Codes, Development Codes, and ordinances that regulate building character, heights, lot configurations, and setbacks. New development would be reviewed on a project-by-project basis to ensure City standards are met and new development is compatible to the existing and desired regional and local urban and natural environment.

Development associated with the proposed project would not result in aesthetic impacts that extend beyond the borders of the City into adjacent cities. The proposed project would not increase densities/intensities beyond what is allowed under the *General Plan* or *Development Code* within the Project Area.

The majority of new development would be focused along key corridors and within the Downtown Core. One of the purposes of the proposed project is to ensure a compatible pattern of development within each neighborhood, district, corridor, or future specific plan or overlay areas. The proposed project includes requirements to ensure new development and redevelopment is designed with consistent character as envisioned for the area, and that buffers are provided to minimize impacts to adjacent uses.

The proposed project establishes goals and actions that would further contribute to the character and aesthetic quality of the City by focusing on eliminating and/or preventing blight, applying design and use standards, implementing beatification projects, removing economic roadblocks to future development and redevelopment, and encouraging the restoration and reuse of historic structures. Through such actions as the rehabilitation, remodeling, modernization of existing structures, provision of open space, creation of economic development programs to eliminate blight, and adoption of specific design guidelines, the proposed project would create beneficial impacts on the aesthetic quality of the City.

Mitigation Measures (AES-1 through AES-4) would reduce the proposed project's incremental aesthetic impact on the region to a less than significant level. Therefore, implementation of the proposed project would not result in cumulatively considerable aesthetic impacts.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measures AES-1 through AES-4. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

5.3.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Aesthetic and light and glare impacts s associated with implementation of the proposed project would be less than significant with compliance with goal and policies in the *General Plan,* standards in the *Development Code,* and the recommended mitigation measures. Therefore, no significant unavoidable aesthetic or light and glare impacts would occur as a result of the proposed project.

5.3.7 SOURCES CITED

Merged, Amended, and Restated Redevelopment Plan for the San Bernardino Merged Redevelopment Project Area A, Redevelopment Agency of the City of San Bernardino, February 26, 2010.

Preliminary Report: San Bernardino Merged Area A Merger and Amendments, Rosenow Spevacek Group, Inc., April 5, 2010.

San Bernardino General Plan, City of San Bernardino, November 1, 2005.

San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report (SCH #2004111132), City of San Bernardino, September 30, 2005.

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SECTION 5.4
TRAFFIC

5.4 TRAFFIC

This section evaluates the potential for traffic impacts associated with implementation of the proposed project. Mitigation measures to reduce the significance of impacts are recommended, as necessary. Information in this section is based on the *San Bernardino General Plan* Circulation Element and the *San Bernardino Final General Plan Update and Associated Specific Plans Environmental Impact Report*. The impact analysis is supplemented by analysis prepared by RBF Consulting, May 2010. Appendices F1 and F2 support this analysis.

5.4.1 REGULATORY SETTING

STANDARDS AND DEFINITIONS

Level of Service and V/C Ratio

An important "standard" referred to throughout this section relates to the ability of a roadway and/or intersection to accommodate traffic. This level of service standard may be used to describe both existing and future traffic conditions. Level of service (LOS) is a qualitative ranking that characterizes traffic congestion on a scale of A to F with LOS A being a free-flow condition and LOS F representing extreme congestion.

In addition to the LOS definition, a volume to capacity ratio or V/C ratio is used to provide a more quantified description of traffic conditions at intersections. The V/C ratio is the ratio of existing or projected traffic volumes to an intersection's design capacity. A V/C ratio of 0.90 for an intersection means that the traffic volumes at the intersection represent 90 percent of its design capacity. The V/C ratio can also be related to the above LOS definitions. For example, an intersection with a V/C ratio exceeding 0.95 is handling traffic volumes that approach design capacity. The V/C ratio of 0.95 corresponds to LOS E, which indicates an unacceptable level of service at that particular intersection.

The thresholds corresponding to each level of service and V/C ratios for unsignalized and signalized intersections are shown in *Table 5.4-1*, *Level of Service and V/C Standards*.

Table 5.4-1
Level of Service and V/C Standards

Level of Service	V/C Ratio (Volume to Capacity)	Two-Way or All-Way Stop Controlled Intersection Average Delay per Vehicle (sec)	Signalized Intersection Average Delay per Vehicle (sec)
A	0.0-0.60	0-10	≤ 10
B	0.61-0.70	> 10-15	> 10-20
C	0.71-0.80	> 15-25	> 20-35
D	0.81-0.90	> 25-35	> 35-55
E	0.91-1.00	> 35-50	> 55-80
F	> 1.00	> 50	> 80 or a V/C ratio equal or greater than 1.0

Source: City of San Bernardino General Plan Update: 2004, Circulation Impact & Mitigation Measures; Transtech Engineers

LOS D is the minimum acceptable threshold at all key intersections in the City of San Bernardino. However, for roadways, the City's minimum threshold is LOS C. The traffic study guidelines require that traffic mitigation measures be identified to provide for operations at the minimum threshold levels.

Roadway Capacity Standards and Passenger Car Equivalents

The following is a list of roadway capacity standards for various types of facilities, used in the roadway capacity analysis for the General Plan:

- 4-lane Major Arterial: 40,000 vehicles per day
- 2-lane Major Arterial: 15,000 vehicles per day
- 4-lane Secondary Arterial: 30,000 vehicles per day
- 2-lane Secondary Arterial: 12,000 vehicles per day
- 4-lane Collector Street: 25,000 vehicles per day
- 2-lane Collector Street: 10,000 vehicles per day

Also, in determining passenger car equivalent (PCE) factors for various trucks, the following factors were used:

- 2-axle Trucks: Equivalent to 2.0 passenger cars
- 3-axle Trucks: Equivalent to 2.5 passenger cars
- 4- or more axle Trucks: Equivalent to 3.0 passenger cars

San Bernardino County Congestion Management Program (CMP)

Proposition 111, passed in June 1990, provided additional transportation funding through a $.09 per gallon increase in the state gas tax. This equates to an estimated annual return of more than $6.25 per person for cities within San Bernardino County, and $7.1 million for the County. Included with the provision for additional transportation funding was a requirement to undertake a Congestion Management Program within each county with an urbanized area of more than 50,000 population, to be developed and adopted by a designated Congestion Management Agency (CMA). Within San Bernardino County, SANBAG was designated the CMA by the County Board of Supervisors and a majority of the cities representing a majority of the incorporated population. CMP Roadways and Intersections in the City are identified throughout this analysis with the "CMP" identifier.

5.4.2 ENVIRONMENTAL SETTING

SAN BERNARDINO GENERAL PLAN

Roadways

The City of San Bernardino has a circulation system consisting of major and secondary arterial roadways, collector roadways, and local streets.

Major Arterials accommodate six or eight travel lanes and may have raised medians. These facilities carry high traffic volumes and are the primary thoroughfares linking San Bernardino with adjacent cities and the regional highway system. Driveway access to these roadways is typically limited to provide efficient high volume traffic flow. Major Arterials within the Project Area include Waterman Avenue, Tippecanoe Avenue, Hospitality Lane, E Street, and 2nd Street.

Secondary Arterials are typically four-lane streets, providing two lanes in each direction. These roadways carry traffic along the perimeters of major developments, provide support to the major arterials, and are also through streets enabling traffic to travel uninterrupted for longer distances through the City. Secondary Arterials within the Project Area include Rialto Avenue, G Street, Arrowhead Avenue (North of 5th Street), and Sierra Way.

Collector Streets are typically two-lane streets that connect the local streets with the secondary arterials allowing local traffic to access the regional transportation facilities. Collector Streets within the Project Area include Mountain View Avenue, D Street, South H Street, 3rd Street, and Stirling Avenue.

Local Streets are typically two-lane streets that are designed to serve neighborhoods within residential areas. There are several variations on local streets depending on location, length of the street, and type of land use.

Freeways and Highways

Freeways/Highways are controlled-access, separated roadways that provide for high volumes of vehicular traffic at high speeds. There are three freeways within the City of San Bernardino and one State highway:

The San Bernardino Freeway (I-10) is the major east-west freeway providing access west to Los Angeles and east to the desert communities and beyond.

Interstate 215 provides north-south freeway access to Riverside and San Diego counties to the south and the high desert communities to the north. Since 2007, both the San Bernardino Association of Governments (SANBAG) and Caltrans have taken the lead in different phases of the I-215 Freeway Widening Project. This project begins at Orange Show Road and ends at University Parkway. Improvements include:

- Construction/widening of on-ramps and off-ramps
- Construction/widening of new and existing bridges over Warm and Lytle Creeks
- Widening of the Freeway
- Construction of new center medians
- Construction of new/widened bridges/ overpasses over the freeway
- New on- and off-ramps at Inland Center Drive
- Construction of High Occupancy Vehicle (HOV) lanes
- Widening/re-construction of roadways adjacent to the freeway

Construction is currently underway, and completion is anticipated to occur by Summer of 2013.

Interstate 210 provides local east-west service between I-215 and State Route 330 (SR-330).

State Route 18 (SR-18) provides a connection from I-210 to the mountain resorts/communities of Lake Gregory.

Rail

San Bernardino includes both major (main line) and minor (spurs) railroads that accommodate both freight and passenger rail services. Both Amtrak and Metrolink provide long-distance passenger train service from the Historic Depot in San Bernardino.

Amtrak trains operate west to Los Angeles; southeast to Palm Springs on to Florida; and northeast to Needles on to Illinois.

Commuter Rail service is provided by the Southern California Regional Rail Authority (SCRRA), which operates the Metrolink train service. The City of San Bernardino is served by the San Bernardino Line, which is Metrolink's busiest line, with a station located at the historic Santa Fe Depot. The San Bernardino Line connects rapidly growing San Bernardino County with the communities of the San Gabriel Valley and downtown Los Angeles. The San Bernardino Line is currently the only line with service seven days a week.

On weekdays, there are 15 round trips per day on the San Bernardino Line with about half of them during commute hours, but with close to hourly service in the mid-day.

Transit

Bus Service

Public transportation in the San Bernardino area is provided by Omnitrans, the regional Public Transit operator for San Bernardino County. Omnitrans operates 21 local-fixed routes, 14 of which serve the San Bernardino Planning Area. General service hours are between 6:00 AM and 8:00 PM, Monday through Saturday.

The Southern California Rapid Transit District provides express bus service between San Bernardino- Riverside and Los Angeles (Line 496) under contract with Omnitrans and the Riverside Transit Agency. Service is provided Sunday through Saturday.

Intercity bus service is provided to downtown San Bernardino by Greyhound and Continental Trailways that recently merged. The Greyhound bus depot is at 6th and G Streets.

Demand/Response System

Omnitrans provides San Bernardino residents that qualify for service under the Americans with Disabilities Act with a demand/response transportation system known as "Access." A resident may call and request a pick-up and delivery to a requested destination on a space-available basis with a reservation made 24 hours in advance.

E Street SBX

Omnitrans has been working since 2004 on the planning and design of a Bus Rapid Transit service known as the E-Street SBX. The E-Street SBX is intended as a transit corridor with 16

potential station locations along a 16.1-mile corridor that runs through the E Street Corridor within the City of San Bernardino. The line originates at Palm Avenue and Kendall Drive runs along Kendall to E Street where it heads south along E Street. At the southern end of the corridor the SBX line heads east on Hospitality Lane and then south along Anderson Street terminating at Loma Linda University.

The current route features 5.6 miles of exclusive (bus-only) lanes, separated from normal traffic. The remaining 10.5 miles of the route will be in mixed traffic, with transit priority signals at key intersections. The route proposes four stations with park-and-ride lots to encourage people to leave their cars and hop on the bus. Construction of this facility is anticipated to occur sometime in 2011 with passenger service starting in late 2013. Construction and operation of this transit corridor may affect traffic flow and patterns by preventing traffic movement across the dedicated right of ways and an increase in the amount of bus traffic along the E Street corridor throughout the City, including the Project Area.

EXISTING TRAFFIC CONDITIONS

This section summarizes the existing circulation conditions in the City of San Bernardino from the *General Plan EIR*. Eighty intersections, 23 roadway segments and 12 freeway segments were included in the study area for the General Plan analysis. The analysis is based on the existing amount of traffic volume on various street corridors and the capacity of the streets and intersections to carry traffic. The capacity measures the ability of the street system to meet and serve the demands from traffic. The capacity of a roadway is affected by a number of factors, e.g., the street width, the number of travel lanes, the number of crossing streets, the type of traffic control devices, the presence of on-street parking, the number of access driveways, the streets horizontal and vertical alignments, etc.

As shown in Table 5.14-2 of the *General Plan EIR*, the following intersections are currently operating at an unacceptable LOS, i.e., the LOS at these intersections is worse than LOS D (LOS E or F):

- Hunts Lane @ E Street (in Project Area)
- Meridian Avenue @ Rialto Avenue (not in Project Area)
- Mountain View Avenue @ San Bernardino Avenue (not in Project Area)
- Rancho Avenue @ 5th Street/Foothill Boulevard (not in Project Area)
- SR-30 WB Off-Ramp @ 30th Street (not in Project Area)
- Tippecanoe Avenue @ Rialto Avenue (not in Project Area)
- Waterman Avenue @ 36th Street (not in Project Area)
- Waterman Avenue @ 5th Street - CMP intersection (in Project Area)
- Waterman Avenue @ SR-30 EB Ramp - CMP intersection (not in Project Area)

As shown in Table 5.14-3 of the *General Plan EIR*, only the following roadway segments shows an unacceptable LOS (i.e., LOS D or worse) based on capacity analysis of 24-hour volumes:

- Tippecanoe Avenue South of Hospitality Lane (in Project Area)

The CMP standard for acceptable LOS at intersections and roadway segments is LOS E or better. No local roadway segment falls into this category. The City uses a higher Standard of LOS D as a minimum acceptable service level for intersections and LOS C for roadway segments.

As shown in Table 5.14-4 of the *General Plan EIR*, all freeway segments are currently operating at the CMP acceptable LOS of E or better.

GENERAL PLAN BUILDOUT

As shown on the Table 5.14-9 in the *General Plan EIR*, the following four roadway segments are expected to perform at an unacceptable level of service (LOS D or worse) at build-out of the General Plan according to standards established by the City:

- Baseline Street between Palm Avenue and Valencia Avenue (not in Project Area)
- E Street between 9th Street and Kendall Drive (not in Project Area)
- Pepper Avenue between I-10 and Foothill Boulevard (not in Project Area)
- Sierra Way between Waterman Avenue and 40th Street (not in Project Area)

As shown in Table 5.14-10 in the *General Plan EIR*, a number of freeway segments would be affected by the buildout of the General Plan Update.

GENERAL PLAN BUILDOUT FORECAST AND OPERATING CONDITIONS

Based on the traffic volume data obtained from future conditions model, the future traffic conditions at buildout of the General Plan were analyzed. The results of this analysis are contained in *General Plan* Appendix 14, Traffic Analysis Summary (Table 4 for intersections and Table 5 for roadway segments). The following illustrate the key observations from the analysis of projected traffic conditions for the buildout of the General Plan.

Table 4 of *General Plan* Appendix 14 shows that the following intersections are expected to perform at an unacceptable level of service and require mitigation:

- Northpark Boulevard @ University Parkway (not in Project Area)
- Hunts Lane @ E Street (in Project Area)
- Waterman Avenue @ 30th Street (not in Project Area)
- Waterman Avenue @ SR-30 EB Ramps (not in Project Area)
- SR-30 WB Off-ramp @ 30th Street (not in Project Area)
- Harrison Street @ 40th Street (not in Project Area)
- Waterman Avenue @ 36th Street (not in Project Area)
- Waterman Avenue @ 34th Street (not in Project Area)
- Valencia Avenue @ 40th Street (not in Project Area)
- Tippecanoe Avenue @ Rialto Avenue (not in Project Area)

- Rancho Avenue @ 5th Street/Foothill Boulevard (not in Project Area)
- Mountain View Avenue @ San Bernardino Avenue (not in Project Area)

Table 5 of *General Plan* Appendix 14 shows that the following roadway segments are projected to show unacceptable LOS:

- Base Line Street between Palm Avenue and Valencia Avenue (not in Project Area)
- E Street between 9th Street and Kendall Drive (not in Project Area)
- Sierra Way between I-10 Freeway and Foothill Boulevard (not in Project Area)
- Sierra Way between Waterman Avenue and 40th Street (not in Project Area)

Mitigation and improvement measures are required for the intersections and roadway segments that show unacceptable LOS. Typically, improvements at intersections result in improvement in traffic conditions on its approaches and thereby mitigate impacts on roadway segments.

Therefore, a number of mitigation measures have been identified for a total of 13 intersections where traffic analysis indicated circulation deficiencies. These mitigation/improvement measures would improve intersection performance to an acceptable LOS during peak hours. *General Plan* Appendix 9, Circulation Plan Changes, contains a list of these improvements, which are restated below.

Circulation Plan Changes from 1989 Circulation Plan

1) Mt. View Avenue: (joint jurisdiction with Redlands): I-10 Freeway to San Bernardino Avenue; Upgrade from Secondary to Major Arterial. This classification upgrade is consistent with the City of Redlands' General Plan Circulation Element and current intentions to construct the northbound lane portion of a proposed six-lane major arterial.

This proposed roadway will accommodate projected growth and provide convenient freeway access in the Redlands designated East Valley Corridor Specific Plan area. City Development Services staff held recent meetings with the City of Redlands consultants to discuss/determine the ultimate roadway street width and right-of-way for this roadway widening project per attached cross-section).

2) Mt. View Avenue: (joint jurisdiction with Redlands): Add a new Secondary Arterial; between San Bernardino Avenue and Central Avenue. This roadway request is a continuation from Item #1. The City of San Bernardino at the request of SANBAG, hopes to develop a secondary roadway to alleviate traffic demand on Tippecanoe Avenue enroute to the I-10 freeway from the proposed IVDA/Hillwood development of the former Norton AFB complex. The cooperative project with the City of Redlands will include a proposed four-lane arterial with a bridge over the Santa Ana River. Funding for this project is pending.

3) Central Avenue: Add Secondary Arterial between Mt. View Avenue and Tippecanoe Avenue. Also, add Secondary Arterial between Mt. View Avenue and Arrowhead Avenue. The intent of this request is to make the Central Avenue roadway segment between Arrowhead Avenue and the proposed Mt. View Avenue extension uniform and consistent with the General Plan update. This roadway is proposed to be the primary

access to the IVDA/Southgate Development and is an important east/west link between Tippecanoe Avenue and Waterman Avenue.

4) Richardson Street: Add Collector Arterial between Riverview Drive and the I-10 freeway. This roadway was previously designated as a local street, but should be upgraded to a local collector since it connects the Riverview Industrial Park to Redlands Boulevard with a bridge over the I-10 freeway. Richardson Elementary School is located on this street so this roadway is used as the primary route to/from school by students, parents, and school buses.

5) Harriman/Rosewood Alignment: Delete the easterly half of Harriman (Rosewood Drive) Orchid to Tippecanoe. Since Harriman Drive is presently being realigned to Laurelwood Drive, the existing roadway segment connection to Tippecanoe Avenue needs to be vacated/deleted to accommodate the proposed Hub development.

6) New Harriman/Laurelwood Dr. Alignment: Plot the new Laurelwood alignment from Harriman to Tippecanoe Avenue, designate as a Secondary Arterial. As indicated in Item #5, Harriman is being realigned to Laurelwood Drive to accommodate the Hub commercial development that is to be located south of the Harriman realignment between the I-10 freeway and Tippecanoe Avenue. The secondary arterial designation is compatible with the previous road way classification for the Tri-City Center Specific Plan.

7) Carnegie Drive: Upgrade easterly segment between Brier and Hospitality to Major Arterial designation. The requested classification upgrade will make the Carnegie Drive uniform and consistent with the Tri-City Center Specific Plan for the full built-out scenario.

8) Victoria Avenue: Add Secondary Arterial between Tippecanoe Avenue and Mt. View Avenue. This roadway was previously designated as a local street but has since gained importance due to the northerly realignment of Lugonia Street by the City of Redlands to intersect Victoria Avenue at Mt. View Avenue. Victoria Avenue has industrial/commercial development between Tippecanoe and Richardson and residential development between Richardson and Mt. View Avenue.

9) Coulston Street: Add Secondary Arterial between Tippecanoe Avenue and Mt. View Avenue. This proposed roadway will provide a convenient east/west access to patrons who frequent businesses on Hospitality Lane (Costco, Staples, etc) from the Redlands area via Mt. View Avenue. The proposed roadway classification is compatible with the major Arterial classification that is assigned to Hospitality Lane. Hospitality Lane becomes Coulston Street after it crosses Tippecanoe Avenue in an easterly direction.

10) Lena Road Extension: Delete roadway segment between Orange Show Road and Carnegie Drive. The Lena Road extension as presently proposed will terminate at Orange Show Road and will not cross the Santa Ana River. The City is proposing to extend Mt. View Avenue across the Santa Ana River to the east and is proposing to designate Mt. View Avenue as the secondary access to the IVDA/Hillwood Development of the airport.

11) Tippecanoe Avenue: Add Major Arterial between Central Avenue and 3rd Street. Tippecanoe Avenue was mistakenly designated as a local street between Rialto Avenue and Central Avenue in the General Plan. This roadway request will make Tippecanoe Avenue more

uniform between 3rd Street and the I-10 freeway and more compatible with the development proposed for the former air force base.

12) Mill Street: Confirm the upgrade of Mill Street between Lena Road and Tippecanoe Avenue as a Major Arterial. This request is similar to Item #12. This referenced segment of Mill Street was mistakenly depicted as a local street when in fact to be uniformly consistent with the General Plan classification, it needs to be shown as a Major Arterial.

13) Vanderbilt Way: Upgrade Vanderbilt Way between Waterman and Carnegie to a secondary arterial. This roadway was designated as a local street in the 1989 Circulation Element. To be consistent with the Tri-City Center Specific Plan, this roadway should be upgraded to a secondary arterial that connects Waterman Avenue to Carnegie Drive.

14) Riverview Drive: Add Collector Arterial between San Bernardino Avenue and Mt. View Avenue. This roadway was initially shown as a local street in the 1989 Circulation Element. However, since this roadway provides indirect secondary access to the I-10 freeway and direct access to Redlands Boulevard from the Riverview Industrial Park, staff would like the roadway to be upgraded to a secondary arterial.

15) Fairway Drive: Extend roadway easterly from Camino Real to intersect S. "E" Street, and designate as a Secondary Arterial. Similar to several previous items, this roadway was listed as a local street in the 1989 Circulation Element. However, since this roadway is a major southerly east/west link between our City and Colton, staff is requesting that the referenced street segment be upgraded to a Secondary Collector.

16) Commercenter Drive East, Commercenter Drive West, and Business Center Drive: Upgrade roadway segments off Hospitality Lane and designate all as Collector Arterials. Similar to several previous items, these roadways are listed as local streets in the 1989 Circulation Element.

17) Caroline Street, Club Way, Club Center Drive, Commercial Road, and Wier Road: Add roadway segments between Hunts Lane and Waterman Avenue and designate as Collector Arterials. Similar to several previous items, these roadways should be upgraded to Collector Arterials since the area has not fully reached its ultimate growth potential and the referenced roadways do function as collectors to adjacent local residential streets.

18) Harry Sheppard Boulevard: Add roadway segment between Tippecanoe Avenue and Del Rosa Avenue, and designate as a Secondary Arterial. This roadway is shown as a local street in the 1989 Circulation Element. To be consistent with the goals and infrastructure plan for the IVDA/ Hillwood Northgate Development of the former air force base property, this roadway should be upgraded to a Secondary Arterial.

19) Del Rosa Avenue: Show roadway to Harry Sheppard Boulevard and designate as a Major Arterial. Similar to Item # 18, this roadway was shown as a local street in the 1989 Circulation Element. Using the same rationale as Item #18 and to be uniformly consistent with the existing roadway classification of Del Rosa Avenue, staff is recommending that this roadway segment be upgraded to a Major Arterial.

20) Sierra Way: Downgrade roadway classification between 5th Street and Mill Street from Major to Secondary Arterial. Staff is requesting this downgrade for purposes of roadway classification consistency along the entire length of Sierra Way. Waterman Avenue, which is less than ¼ mile easterly of Sierra Way functions as a Major north/south Arterial through the center of our City.

21) "D" Street: Downgrade roadway classification between Rialto Avenue and Mill Street from Secondary to Collector Arterial. Staff is requesting this downgrade due to the significant decrease in traffic along "D" Street south of Rialto Avenue. There is also no direct access along "D" Street between Rialto Avenue and Mill Street since "D" Street is a "T" intersection at Valley Street and Oak Street with a missing segment in between.

22) "I" Street: Delete Secondary Arterial segment between 2nd and 3rd Streets. The reconfiguration of the I-215 freeway off ramps at 2nd Street will necessitate the need for a cul-de-sac for "I" Street at 3rd Street, therefore the need to delete the referenced street segment.

23) 3rd Street: Delete Secondary Arterial segment between Viaduct/"K" Street and Mt. Vernon Avenue. This segment of 3rd Street will become the access roadway for the parking lot area of the Santa Fe Depot/ Metrolink multi-modal complex.

24) 2nd Street: Delete the Major Arterial connection between Mt. Vernon Avenue and Rialto Avenue. 2nd Street west of Mt. Vernon Avenue is of no major significance and should be downgraded to a local street since it serves a few adjacent residences nearby and provides secondary access to Rialto Avenue.

25) 4th Street: Designate 4th Street as a collector arterial between Arrowhead Avenue and "G" Street. Staff has agreed to designate this segment of 4th Street as a collector arterial because of the limited linkage between the Santa Fe Depot, various governmental agencies, and the CBD.

26) Medical Center Drive: Delete this Secondary Arterial segment between Rialto Avenue and 5th Street. This roadway segment has never existed as other than a "paper street". The BNSF multi-modal facility complex will prevent this roadway from ever being constructed. Medical Center Drive was initially named Muscott Street and is known by that name, south of Rialto Avenue.

> ***26a) Eastbound 4th Street will be diverted to 5th Street due to new Mt. Vernon bridge alignment.*** Staff reached a consensus on this item at the last General Plan meeting. The northerly alignment is still pending.

27) Crestview Avenue: Delete this Collector segment between 21st Street and Highland Avenue. Crestview Avenue forms a "T" intersection at 21st Street. The expansion of the Saint Bernardine's Hospital complex would prevent any possible extension of Crestview Avenue to Highland Avenue.

28) Piedmont Drive: Delete this segment between Victoria Avenue and Arden Avenue. Piedmont Drive existed as a "paper street" for the past several decades. The development of the San Manuel casino complex will prevent the roadway from ever being constructed and street vacation proceedings are pending. Piedmont Drive is presently a cul-de-

sac on the east side of Victoria Avenue. Piedmont drive between Highland Avenue and the cul-de-sac easterly of Victoria Avenue shall be designated as a collector arterial.

29) Meridian Avenue: Show Collector roadway segment break between Mill Street and Rialto Avenue. Meridian Avenue is not a through street between Mill Street and Rialto Avenue. There are Metrolink railroad tracks that currently are a barrier to this roadway segment. The roadway will probably never be extended northerly due to the close proximity of Pepper Avenue which is a major north/south arterial.

30) 16th Street: Downgrade all roadway segments between Waterman and State Street from Secondary to Collector Arterial. 16th Street is basically an excellent east/west collector arterial being strategically located half way between the major arterials of Base Line and Highland Avenue. 16th Street also runs predominantly through residential neighborhoods.

31) Sepulveda Avenue: Downgrade roadway segment from 40th Street north to Collector Arterial. Sepulveda Avenue will function as an excellent residential neighborhood collector roadway that provides convenient north/south access to commercial development along 40th Street. Sierra Way, which is one block westerly of Sepulveda, is designated as a secondary arterial due to it 4-lane configuration and its access to highway 18 and the southerly limits of the City where it essentially terminates at Mill Street.

32) "H" Street Downgrade roadway segment between Kendall Dr. and Northpark Blvd. to a collector. "H" Street makes an excellent collector roadway that provides local neighborhood access to 40th Street/Kendall Drive commercial development. Nearby Mountain Street and Little Mountain Drive are both designated as north/south secondary arterial roadways. A major portion of this roadway is in unincorporated (County) areas.

> ***32a) show a break (cul-de-sac) between N. Arrowhead Avenue at N. "E" Street***. When "E" Street was widened to a four-lane roadway ten years ago, Arrowhead Avenue became a cul-de-sac for safety and access reasons. Hence there is no longer access to "E" Street off Arrowhead Avenue.

33) Marshall Boulevard: Show roadway break between Arden Avenue and Victoria Avenue. Marshall Boulevard has been vacated between Rockford Drive and Victoria Avenue to accommodate the San Manuel casino expansion program. Marshall Boulevard is scheduled to become a cul-de-sac at Rockford Drive.

34) 48th Street: Extend roadway segment to Kendall Drive with same classification (Secondary). 48th Street is a major east/west arterial roadway between 40th Street and Northpark Boulevard that connects Electric Avenue to Kendall Drive. The roadway runs partially through an unincorporated County neighborhood.

35) 30/210: Show freeway expansion to the west. The Rte 30/210 Freeway project appears to be under construction so it should be shown on the circulation element along its westerly right-of-way path. Completion of this major east/west freeway will probably alter nearby adjacent local street traffic patterns in the future.

36) Campus Way: Show perimeter roadway segment on north side of CSUSB campus, designate as a Secondary Arterial. A consensus was reached that this roadway segment should function as a collector roadway due to limited peripheral traffic demand. Future residential development (Paradise Hills) will not contribute significant volumes of traffic to warrant any additional upgrade to this proposed classification.

37) Irvington Avenue: Add Collector Arterial segment between Pine Avenue and Magnolia Avenue (extended). Residential development in the Verdemont community and the proposed construction of the Cesar Chavez Middle School on Belmont Avenue has created a need for this upgrade from a local street to collector roadway.

38) Magnolia Avenue: Add Collector Arterial segment between Ohio and Irvington Avenue. The proposed construction of the Cesar Chavez Middle School at the intersection of Belmont Avenue at Magnolia necessitates the upgrade of Magnolia to collector arterial status.

39) Little League Drive (?): delete this misidentified roadway segment as shown. This item is pending and is shown as Item #60.

40) Harrison Street: Add Collector Arterial segment between Lynwood Drive and 40th Street. Needs to be upgraded to a collector roadway since it carries unimpeded local residential traffic between Lynwood Drive and 40th Street.

41) 21st Street: Extend roadway segment between Waterman Avenue and "H Street, and designate as a Collector Arterial. After reconsideration, should remain a local street segment due to narrow street width and residential status, one block south of Highland Avenue, which is a major arterial.

42) Marshall Boulevard: Extend this roadway segment to Little Mountain Drive, and designate as a Collector Arterial. This roadway carries local neighborhood traffic north of 30th Street/Rte 30 between Little Mountain Drive and "E" Street.

43) 30th Street: Upgrade roadway segment designation between Little Mountain Drive and Valencia Avenue to a Secondary Arterial. The entire length of 30th Street/Lynwood Drive should be designated as a secondary arterial since it is the major east/west roadway north of the Rte. 30/210 freeway.

> ***43a) Downgrade Arrowhead Avenue to a collector between 30th Street and north terminus cul-de-sac***. Since there is no longer direct access to "E" Street from Arrowhead Avenue, this roadway north of 30th Street essentially serves local surrounding residences.

44) Valencia Drive: Designated to remain as a Secondary Arterial. No change required

45) 28th Street: The roadway segment between Valencia Avenue and Golden Avenue should be broken. An existing flood control channel prevents this roadway connection from becoming economically feasible.

46) Orange Street: Designate as a Collector Arterial segment between Piedmont Drive and Base Line. A portion of this roadway is in the City of Highland. The local street patterns are fragmented between Orange Street and Palm Avenue and Patton State Hospital is an obstacle to the west so most north/south residential traffic in that area travels along Orange Street.

47) Pumalo Street: Show roadway segment ending at Arden Avenue with no connection to Victoria Avenue. There is an existing substantial flood control area adjacent to the west side of Victoria Avenue between Lynwood Drive and Highland Avenue that would make this roadway extension economically unfeasible.

48) Date Street: Show roadway segment ending at Arden Avenue with no connection to Victoria Avenue. Same rationale as Item # 47.

49) H Street: Add Collector Arterial between Inland Center Drive to terminate as a cul-de-sac S/O Mill Street. The I-215 expansion project and off-ramp reconfiguration will alter local street traffic patterns in the area adjacent to the proposed Mill Street/I-215 ramps. Traffic on "H" Street will be diverted along Huff Street and Crescent Street.

50) Huff Street & Crescent Avenue: Add roadways as Local Collectors between "H" Street and Mill Street. See item # 49.

51) 10th Street: Downgrade roadway between I-215 freeway and Waterman Avenue to a local street. 9th Street is designated as a secondary east/west arterial and should relieve 10th Street of anything but local traffic.

52) Miramonte Drive: Add Collector Arterial between 27th Street and Marshall Boulevard. ***Reconsideration: Miramonte should remain a local street due to its close proximity to Little Mountain Drive, which is designated a secondary arterial.***

53) 6th Street: Downgrade roadway between Waterman Avenue and Victoria Avenue to a Collector Arterial. This item should be deleted based on further review, which suggests that most of this roadway segment runs through unincorporated County and City of Highland jurisdictions. Our City has only minor centerline segments of this roadway.

54) Arden Avenue: Leave roadway segment between Base Line and 3rd Street. This segment lies entirely within the City of Highland so this item is not pertinent to the General plan update.

55) Darby Street: Downgrade segment between Pepper Avenue and Cajon Blvd. to a Collector Arterial. This area is strictly residential (a major portion lies within unincorporated County jurisdiction) with insignificant traffic volumes, but with future development potential.

56) Meyers Road: Add roadway (loop) Between Little League Drive and freeway frontage road and designate as a Collector Arterial. The exact location of this roadway(s) is pending.

56a) Add Pennsylvania Avenue between Pine Avenue and Little League Drive and designate as a collector arterial. The westerly extension of Pennsylvania Avenue shall be designated (Cable Canyon Road?) and shall meander through the foothills to eventually intersect the north terminus of Paso Robles Road.

57) Central Avenue: Extend roadway segment southerly to 3rd Street and reclassify as a Collector Arterial (3rd Street to Highland Avenue - City portion is Highland Avenue to Pacific Street only). The City of Highland has also classified Central Avenue in their General Plan Circulation Element.

58) Golden Avenue: Downgrade roadway segment between Lynwood Drive and 40th Street from a secondary arterial to a Collector Arterial due to proximity to Harrison Street and Mountain Avenue which are also designated as collector arterials. Golden Avenue becomes a two-lane roadway, meanders through local residential neighborhoods between Marshall Boulevard and 40th Street, and is not suited as a secondary arterial.

59) Evans Street (future): Delete: Not practical due to Hub development.

60) Show new (collector arterial) frontage road from Little League Drive to Devore Road (pending).

61) 6th Street: Delete roadway segment west of "H" Street Future I-215 freeway ramp modifications will eliminate this roadway segment.

62) Sterling Avenue Extension: Designate (and plot) roadway extension (loop) as a collector arterial to connect all proposed residential cul-de-sacs that might comprise a residential development once known as Sterling Heights.

63) North Lake Project: Delete portions of "G" Street between 9th Street and Base Line; and 10th Street between "H" Street and "E" Street.

5.4.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to traffic resources. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

- Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.

- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks (refer to Section 8.0, Effects Found Not To Be Significant).

- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) (refer to Section 8.0, Effects Found Not To Be Significant).

- Result in inadequate emergency access (refer to Section 8.0, Effects Found Not To Be Significant).

- Result in inadequate parking capacity (refer to Section 8.0, Effects Found Not To Be Significant).

- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks) (refer to Section 8.0, Effects Found Not To Be Significant)

A project's traffic impact is determined based upon whether or not traffic volume associated with the project deteriorates the level of service at an intersection location to an unacceptable LOS E or F and for roadway segments below LOS C.

According to the City of San Bernardino Traffic Impact Study Guidelines, traffic impacts at an intersection are to be considered "significant" when any of the following changes in the volume to capacity (V/C) ratios occur between the "without project" and the "with project" conditions:

LOS	**V/C with Project Increase**s
C	> 0.0400
D	> 0.0200
F	> 0.0100

The LOS and V/C ratios are based upon the delay methodology outlined in the Highway Capacity Manual.

Based on these significance standards, the effects of the proposed project have been categorized as either "no impact," a "less than significant impact," or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.4.4 PROJECT IMPACTS AND MITIGATION MEASURES

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD GENERATE TRIPS THAT COULD IMPACT LEVELS OF SERVICE FOR THE EXISTING AREA ROADWAY SYSTEM.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: As identified in the *General Plan*, forecast buildout conditions for the City allows for approximately 82,174 units of residential land use and approximately 189,934,304 square feet of non-residential land use. The proposed project plans for 1,833 units of residential land use and 6,200,590 square feet of non-residential land use, which is approximately 2.2 percent of the allowable residential dwelling units and approximately 3.3 percent of the allowable non-residential square footage in the *General Plan*. As identified in the *General Plan EIR*, implement of the circulation improvements proposed in the *General Plan* Circulation Element would mitigate traffic-related impacts associated with General Plan buildout. However, it was determined that the timing of these mitigation measures may not coincide with the occurrence of the impact.

PROPOSED PROJECT TRIP GENERATION

This section provides a forecast trip generation based on the proposed land uses. The proposed project includes the following mix of residential and commercial land uses:

- 1,833 Apartment Units;
- 518,916 square feet Light Industrial;
- 2,399,780 square feet General Office; and
- 3,281,894 square feet Shopping Center/Retail.

In summary, the proposed project plans for 1,833 units of residential land use and 6,200,590 square feet of non-residential land use. The proposed project trip generation is provided for the following development potential and identified redevelopment projects:

- Vacant Land Analysis;
- Carousel Mall Redevelopment Project;
- Heritage Square;
- Redevelopment of Former Military Facilities;
- Seccombe Lake Village;
- Arrowhead Credit Union Headquarters Campus;
- Theater District Implementation; and
- Intermodal Station and Transit-Oriented Development.

To calculate trips forecast to be generated by the proposed project land uses, *Institute of Transportation Engineers (ITE)* trip generation rates were utilized. *Table 5.4-2* summarizes the *ITE* trip generation rates used to calculate the number of trips forecast to be generated by the proposed project land uses. *ITE* trip rates are based on surveys of representative facilities throughout the United States.

Table 5.4-2
***ITE* Trip Rates for Proposed Project Site Land Uses**

Land Use (*ITE* Code)	Units	AM Peak Hour			PM Peak Hour			Daily Trip Rate
		In	Out	Total	In	Out	Total	
Light Industrial (110)	tsf	0.81	0.11	0.92	0.12	0.85	0.97	6.97
Apartment (220)	du	0.10	0.41	0.51	0.40	0.22	0.62	6.65
Hotel (310)	rooms	0.34	0.22	0.56	0.31	0.28	0.59	8.17
Shopping Center/Retail (820)	tsf	0.61	0.39	1.00	1.83	1.90	3.73	42.94
General Office Building (710)	tsf	1.36	0.19	1.55	0.25	1.24	1.49	11.01

Source: *2008 ITE Trip Generation Manual, 8th Edition*.
Note: tsf = thousand square feet.

Transit Usage Reduction

Studies have shown that transit oriented development (TOD) projects generate less traffic than is generated by conventional development projects. Accurate forecasting of trip generation for TOD projects can right-size road and intersection improvements to reflect the actual transportation performance of the project, resulting in less overall costs for the governing agency and the private sector developer. As indicated in the Transit Cooperative Research Program 128 (Transportation Research Board), transit-oriented apartments generate between 15 and 25 percent lower traffic in low-density suburban locations. Since enhanced transit services are planned in the vicinity of land uses associated with the Intermodal Station and Transit-Oriented Development project component, an appropriate transit usage reduction is included in the trip generation calculations. This analysis conservatively assumes a ten percent trip reduction related to transit usage.

Internal Trip Capture Reduction

As documented in *ITE's Trip Generation Handbook (Institute of Transportation Engineers, 2nd Edition, 2004),* an internal trip capture reduction is applicable when a project area has multiple destinations (such as the project components), in which a person visits more than one destination on-site during the same visit. For example, a person at the Carousel Mall Redevelopment Project component may first visit the office land uses then later visit a retail use in the same vehicle trip to the project site. An internal trip capture reduction under this example would reduce/eliminate both the trip exiting the office building as well as the trip to the retail use from the office building, since both these trips occurred within the Project Area. The only trips generated under this internal trip capture reduction example would be an inbound trip to the project site to the office building and a trip from the retail use exiting the Project Area. Hence, two trips are generated under this internal trip capture reduction example. Without the internal trip capture reduction, four trips would be generated: an inbound trip to the office building, an outbound trip exiting the office building, an inbound trip to the retail use, and an outbound trip exiting retail use.

Internal trip capture has been calculated for the proposed project land uses, on a per project component basis, as directed in *Trip Generation Handbook (Institute of Transportation Engineers, 2nd Edition, 2004)*. The *ITE* internal trip capture percentage varies based upon the mix of land uses in each project component and is calculated for PM peak hour and daily trip

generation. It should be noted, this analysis conservatively does not apply an internal trip capture reduction during the AM peak hour despite *ITE* data on mid-day traffic patterns. Additionally, this analysis conservatively does not apply internal trip capture reduction accounting for existing land uses, which may also provide compatibility with the proposed project land uses.

Pass-by Trip Reduction

As documented in *ITE's Trip Generation Handbook (Institute of Transportation Engineers, 2nd Edition, 2004),* a pass-by trip reduction is applicable to land uses located along busy arterial highways attracting vehicle trips already on the roadway; this is particularly the case when the roadway is experiencing peak operating conditions. For example, during the PM peak hour, a motorist already traveling along the arterial between work and home may stop at retail uses within the project components. A pass-by discount under this example would reduce/eliminate both the inbound trip and the outbound trip from the surrounding roadway circulation system since the vehicle was already traveling on the roadway. Without the pass-by trip discount, two trips would be generated: an inbound trip to the project component, and an outbound trip from the project component.

The following pass-by trip reductions applicable to the proposed shopping center land use is documented in the ITE *Trip Generation Handbook (Institute of Transportation Engineers, 2nd Edition, 2004):*

- Shopping Center: 34 percent weekday PM peak hour pass-by trip reduction.

Table 5.4-3 summarizes forecast trip generation of the proposed project, utilizing the trip generation rates shown in *Table 5.4-2*. Detailed trip generation calculation sheets are contained in Traffic Appendix A. Detailed internal trip capture calculation sheets are contained in Traffic Appendix B.

Table 5.4-3
Forecast Trip Generation of Proposed Project

Project Component	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
Vacant Land Analysis							
- 518.916 tsf Light Industrial	420	57	477	62	441	503	3,617
- 788 du Apartments	79	323	402	315	173	488	5,240
ITE Internal Trip Capture Reduction (7% PM; 7% Daily)[1]	N/A	N/A	N/A	-22	-12	-34	-367
- 909.780 tsf General Office	1,237	173	1,410	227	1,128	1,355	10,017
ITE Internal Trip Capture Reduction (7% PM; 7% Daily)[1]	N/A	N/A	N/A	-16	-79	-95	-701
- 2,309.894 tsf Shopping Center	1,409	901	2,310	4,227	4,389	8,616	99,187
ITE Internal Trip Capture Reduction (7% PM; 7% Daily)[1]	N/A	N/A	N/A	-296	-307	-603	-6,943
ITE 34% PM Peak Hour Pass-By Reduction[1]	N/A	N/A	N/A	-1,337	-1,388	-2,725	-2,725
Carousel Mall Redevelopment Project							
- 750 du Apartments	75	308	383	300	165	465	4,988
ITE Internal Trip Capture Reduction (4% PM; 6% Daily)[1]	N/A	N/A	N/A	-36	-20	-56	-648
- 800.0 tsf General Office	1,088	152	1,240	200	992	1,192	8,808
ITE Internal Trip Capture Reduction (4% PM; 6% Daily)[1]	N/A	N/A	N/A	-24	-119	-143	-1145
- 677.0 tsf Shopping Center	413	264	677	1,239	1,286	2,525	29,070
ITE Internal Trip Capture Reduction (4% PM; 6% Daily)[1]	N/A	N/A	N/A	-149	-154	-303	-3,779
ITE 34% PM Peak Hour Pass-By Reduction[1]	N/A	N/A	N/A	-371	-385	-756	-756

Table 5.4-3 (continued)
Forecast Trip Generation of Proposed Project

Project Component	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
Heritage Square							
- 30.0 tsf Shopping Center	18	12	30	55	57	112	1,288
ITE 34% PM Peak Hour Pass-By Reduction[1]	N/A	N/A	N/A	-19	-19	-38	-38
Redevelopment of Former Military Facilities							
- 90.0 tsf Shopping Center	55	35	90	165	171	336	3,865
ITE 34% P.M. Peak Hour Pass-By Reduction[1]	N/A	N/A	N/A	-56	-58	-114	-114
Seccombe Lake Village							
- 125 du Apartments	13	51	64	50	28	78	831
ITE Internal Trip Capture Reduction (15% PM; 14% Daily)[1]	N/A	N/A	N/A	-8	-4	-12	-116
- 50.0 tsf Shopping Center	31	20	51	92	95	187	2,147
ITE Internal Trip Capture Reduction (15% PM; 14% Daily)[1]	N/A	N/A	N/A	-14	-14	-28	-301
ITE 34% PM Peak Hour Pass-By Reduction[1]	N/A	N/A	N/A	-27	-28	-55	-55
Arrowhead Credit Union Headquarters Campus							
- 190.0 tsf General Office	258	36	294	48	236	284	2,092
ITE Internal Trip Capture Reduction (1% PM; 2% Daily)[1]	N/A	N/A	N/A	-0	-2	-2	-42
- 25.0 tsf Shopping Center	15	10	25	46	48	94	1,074
ITE Internal Trip Capture Reduction (1% PM; 2% Daily)[1]	N/A	N/A	N/A	-0	-0	-0	-21
ITE 34% P.M. Peak Hour Pass-By Reduction[1]	N/A	N/A	N/A	-16	-16	-32	-32
Theater District Implementation							
- 25.0 tsf Shopping Center	15	10	25	46	48	94	1,074
ITE 34% PM Peak Hour Pass-By Reduction[1]	N/A	N/A	N/A	-16	-16	-32	-32
Intermodal Station and TOD							
- 170 du Apartments	17	70	87	68	37	105	1,131
ITE Internal Trip Capture Reduction (7% PM; 9% Daily)[1]	N/A	N/A	N/A	-5	-3	-8	-102
- 500.0 tsf General Office	680	95	775	125	620	745	5,505
ITE Internal Trip Capture Reduction (7% PM; 9% Daily)[1]	N/A	N/A	N/A	-9	-43	-52	-495
- 75.0 tsf Shopping Center	46	29	75	137	143	280	3,221
ITE Internal Trip Capture Reduction (7% PM; 9% Daily)[1]	N/A	N/A	N/A	-10	-10	-20	-290
ITE 34% PM Peak Hour Pass-By Reduction[1]	N/A	N/A	N/A	-43	-45	-88	-88
10 percent Transit Reduction	-74	-19	-93	-26	-70	-96	-888
Total Proposed Project Trip Generation	**5,795**	**2,527**	**8,321**	**4,902**	**7,265**	**12,167**	**163,477**

Note: tsf = thousand square feet; N/A = Not applicable.
1= ITE Trip Generation Handbook, 2nd Edition, 2004.

As shown in *Table 5.4-3*, the proposed project is forecast to generate approximately 163,477 daily trips, which include approximately 8,321 AM peak hour trips and approximately 12,167 PM peak hour trips.

Traffic-Related Development Impact Fees

To assist in implementing circulation improvements identified in the *General Plan* Circulation Element, the City established development impact fees for both local and regional circulation improvements. All future developments that occur within the City and the Project Area would be required to pay these fees.

Development Type	Local Circulation Fee	Regional Circulation Fee
Detached Dwelling Units	$225.06 per unit	$2,435.00 per unit
Attached Dwelling Units	$150.03 per unit	$1,626.00 per unit
Commercial/ Office	$0.243 per square foot	$2.625 per square foot
Industrial	$0.147 per square foot	$1.591 per square foot

Payment of these fees effectively mitigates the impacts associated with development projects in the City. However, since the circulation improvements may not be constructed until some time after the fees are paid, impacts remain significant . In addition, there may be instances where improvements are shared by other jurisdictions (i.e., Caltrans, City of Redlands, County of San Bernardino, etc.), which may affect the ability to construct the proposed improvements at the time the impact occurs.

The proposed project is consistent with the General Plan, and therefore, detailed traffic analysis for the proposed project was addressed during the adoption of the currently approved *General Plan*. Therefore, no additional traffic impacts or mitigation measures are anticipated beyond those identified in the *General Plan* and *General Plan EIR*, and no further traffic analysis is required for the proposed project. However, since the project-specific mitigation measures or improvements may not be constructed at the time impacts occur, it has been determined that traffic associated with the proposed project would result in a significant unavoidable impact in the Project Area. While these impacts are mitigable, it is the timing of when the mitigation would occur that provides the basis for this determination.

General Plan Goals and Policies:

LAND USE ELEMENT

General Plan policies related to the provision/accommodation of alternative transportation options.

Goal 2.2 **Promote development that integrates with and minimizes impacts on surrounding land uses.**

Policy 2.2.5 Establish and maintain an ongoing liaison with Caltrans, the railroads, and other agencies to help minimize impacts and improve aesthetics of their facilities and operations; including possible noise walls, berms, limitation on hours and types of operations, landscaped setbacks and decorative walls along its periphery.

General Plan policies related to general circulation issues.

Goal 2.3 **Create and enhance dynamic, recognizable places for San Bernardino's residents, employees, and visitors.**

Policy 2.3.6 Circulation system improvements shall continue to be pursued that facilitate connectivity across freeway and rail corridors.

Policy 2.3.7 Improvements shall be made to transportation corridors that promote physical connectivity and reflect consistently high aesthetic values.

Goal 2.7 Provide for the development and maintenance of public infrastructure and services to support existing and future residents, businesses, recreation, and other uses.

Policy 2.7.4 Reserve lands for the continuation and expansion of public streets and highways in accordance with the Master Plan of Highways.

CIRCULATION ELEMENT

General Plan policies related to design of roadways, safety, and the elimination/mitigation of Impacts.

Goal 6.3 Provide a safe circulation system.

Policy 6.3.3 Require that all City streets be constructed in accordance with the Circulation Plan (Figure C-2) and the standards established by the Development Services Director.

Policy 6.3.4 Require appropriate right-of-way dedications of all new developments to facilitate construction of roadways shown on the Circulation Plan.

Policy 6.3.5 Limit direct access from adjacent private properties to arterials to maintain an efficient and desirable quality of traffic flow.

Policy 6.3.6 Locate new development and their access points in such a way that traffic is not encouraged to utilize local residential streets and alleys.

Policy 6.3.7 Require that adequate access be provided to all developments in the City including secondary access to facilitate emergency access and egress

Proposed General Plan policies related to mass transit and rail.

Goal 6.6 Promote a network of multi-modal transportation facilities that are safe, efficient, and connected to various points of the City and the region.

Policy 6.6.1 Support the efforts of regional, state, and federal agencies to provide additional local and express bus service in the City.

Policy 6.6.2 Create a partnership with Omnitrans to identify public transportation infrastructure needs that improve mobility.

Policy 6.6.3 In cooperation with Omnitrans, require new development to provide transit facilities, such as bus shelters and turnouts, as necessary and warranted by the scale of the development.

Policy 6.6.4 Ensure accessibility to public transportation for seniors and persons with disabilities.

Policy 6.6.5 In cooperation with Omnitrans, explore methods to improve the use, speed, and efficiency for transit services. These methods might include dedicated or priority lanes/signals, reduced parking standards for selected core areas, and incorporating Intelligent Transportation System architecture.

Policy 6.6.6 Support and encourage the provision of a range of paratransit opportunities to complement bus and rail service for specialized transit needs.

Policy 6.6.7 Encourage measures that will reduce the number of vehicle-miles traveled during peak periods, including the following examples of these types of measures:

- Incentives for car-pooling and vanpooling.
- Preferential parking for car-pools and vanpools.
- Conveniently located bus stops with shelters.
- An adequate, safe, and interconnected system of pedestrian and bicycle paths

Policy 6.6.8 Promote the use of car-pools and vanpools by providing safe, convenient park-and-ride facilities.

Goal 6.7 Work with the railroads and other public agencies to develop and maintain railway facilities that minimize the impacts on adjacent land uses.

Policy 6.7.1 Accommodate railroad services that allow for the movement of people and goods while minimizing their impact on adjacent land uses.

Policy 6.7.2 Coordinate with SANBAG, SCAG, the County and other regional, state or federal agencies and the railroads regarding plans for the provision of passenger, commuter, and high-speed rail service.

Policy 6.7.3 Encourage the provision of a buffer between residential land uses and railway facilities and encourage the construction of sound walls or other mitigating noise barriers between railway facilities and adjacent land uses.

Policy 6.7.4 Identify existing and future high volume at-grade railroad crossings and pursue available sources of funding (e.g., California Public Utilities Commission) to implement grade separations where appropriate.

General Plan policies relating to parking.

Goal 6.9 Achieve a balance between parking supply and demand.

Policy 6.9.1 Ensure that developments provide an adequate supply of parking to meet the needs, on-site or within close proximity to the developments generating the demand for parking.

Policy 6.9.2 Study the parking standards in the Development Code to determine if they accurately reflect demand and if adequate flexibility is available to accommodate certain situations, such as shared parking, senior housing, or transit oriented developments.

Policy 6.9.3 Require that all new developments provide adequate parking to meet their parking demands on-site or in consolidated parking facilities within close proximity to their site, except for developments within the Central City Parking District.

Policy 6.9.4 Continue to expand the supply of public parking in off-street parking facilities in downtown San Bernardino.

Policy 6.9.5 Continue to provide an in-lieu parking fee option for developments in the downtown area to satisfy all or part of their parking requirement through the payment of an in-lieu fee which will be utilized to provide parking in consolidated public parking facilities.

Policy 6.9.6 Require that new developments submit a parking demand analysis to the City Engineer for review and approval whenever a proposal is made to provide less than the full code requirement of parking for each individual land use on-site at the proposed development.

Policy 6.9.7 Consider all concepts relating to joint use, shared parking, and off-peak demand to maximize the utilization of existing and proposed parking in the Central Business District.

Policy 6.9.8 Develop parking and traffic control plans for those neighborhoods adversely impacted by spillover parking and traffic.

Mitigation Measures: Implementation of the circulation improvements identified in the General Plan Circulation Element and General Plan EIR are required to ensure that impacts to traffic generation within the Project Area are reduced. No additional mitigation measures are required.

Level of Significance After Mitigation: Significant Unavoidable Impact.

5.4.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN CUMULATIVELY CONSIDERABLE TRIPS THAT COULD IMPACT LEVELS OF SERVICE FOR THE EXISTING AREA ROADWAY SYSTEM.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: For this topic, the cumulative impacts are analyzed in terms of impacts within the City. Future development in the City of San Bernardino could result in additional trips on the circulation system. The City of San Bernardino is an urbanized city surrounded by other urban cities. The proposed project, which includes the consolidation of seven Project Areas into one Project Area, is located in the central portion of the City of San Bernardino.

Implementation of the proposed project would result in the addition of 1,833 dwelling units, 6,123 persons, 6,195,718 square feet of non-residential development, and 16,591 jobs beyond existing conditions. Future development associated with implementation of the proposed project would result in increased traffic generation within the Project Area. However, this anticipated growth has been planned for within the *General Plan*. To accommodate this anticipated growth, the *General Plan* Circulation Element identifies the roadway improvements necessary to accommodate the anticipated traffic associated with General Plan buildout. However, these improvements may not be implemented at the time actual circulation impacts occur. For this reason some intersections or roadways may operate at a deficient LOS.

The proposed project identifies several projects and programs to eliminate blight that may occur if the proposed merger and amendments project is approved. Future projects within the City, including those in Merged Area A would be required to mitigate traffic impacts on a project-by-project basis. Therefore, the incremental impact of the proposed project, when considered in combination with development within the City, would not result in cumulatively considerable traffic impacts. Nor would the cumulative traffic impacts generate any new impacts that have not already been identified for the General Plan buildout in the *General Plan EIR*. Relevant policies from the *General Plan* Land Use and Circulation Elements have been identified in the analysis above. Future projects would be reviewed for consistency with the *General Plan* Circulation Element in place at the time.

Although the amount of development associated with the proposed project is consistent with the General Plan, cumulative traffic impacts are considered significant and unavoidable based on the potential for traffic impacts to occur prior to construction of the improvements designed to alleviate those conditions. Although payment of the City's Development Impact Fees provides the funding for these improvements, there is a potential that the improvements may be delayed. Therefore, cumulative traffic impacts are considered significant and unavoidable in this regard.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Implementation of the circulation improvements identified in the General Plan Circulation Element and General Plan EIR are required to ensure that impacts to traffic generation within the Project Area are reduced. No additional mitigation measures are required.

Level of Significance After Mitigation: Significant Unavoidable Impact.

5.4.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Traffic impacts, both project and cumulative, associated with implementation of the proposed project would be significant and unavoidable, even with compliance with the *General Plan* goals and policies, and the recommended circulation improvements identified in the *General Plan* Circulation Element and *General Plan EIR*. If the Redevelopment Agency approves the proposed project, the Redevelopment Agency shall be required to cite their findings in accordance with *CEQA Guidelines* Section 15091 and prepare a Statement of Overriding Considerations in accordance with *CEQA Guidelines* Section 15093.

5.4.7 SOURCES CITED

City of San Bernardino General Plan, Chapter 2, Land Use Element, prepared by The Planning Center, dated November 1, 2005.

City of San Bernardino General Plan, Chapter 6, Circulation Element, prepared by The Planning Center, dated November 1, 2005.

Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report, prepared by The Planning Center, dated September 30, 2005.

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SECTION 5.5
AIR QUALITY

5.5 AIR QUALITY

The purpose of this section is to evaluate potential air quality impacts associated with the proposed project, and is specifically focused on those areas defined and described in Section 2.0, Project Description, of this EIR. This section also includes a comprehensive global climate change analysis. Information in this section is based primarily on the *CEQA Air Quality Handbook*, prepared by the South Coast Air Quality Management District (SCAQMD), April 1993 (as revised through November 1993), Air Quality Data (California Air Resources Board 2004 through 2008), and the *Final Air Quality Management Plan for the South Coast Air Basin*, prepared by the SCAQMD, 2007.

The SCAQMD submitted an NOP comment letter on November 30, 2009, pertaining to the methodology of the air quality analysis. SCAQMD comments have been considered in preparation of this section (see Appendix B, Notice of Preparation Comments).

5.5.1 REGULATORY SETTING

Regulatory oversight for air quality in the South Coast Air Basin (Basin) rests at the Environmental Protection Agency (EPA) Region IX office at the Federal level, the California Air Resources Board (CARB) at the State level, and with the SCAQMD at the regional level.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

The United States Environmental Protection Agency (EPA) is responsible for implementing the Federal Clean Air Act, which was first enacted in 1955 and was amended numerous times. The Federal Clean Air Act established Federal air quality standards known as the National Ambient Air Quality Standards. These standards identify levels of air quality for "criteria" pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare. The criteria pollutants are Ozone (O_3), Carbon Monoxide (CO), Nitrogen Dioxide (NO_2) (which is a form of nitrogen oxides [NO_X]), Sulfur Dioxide (SO_2) (which is a form of sulfur oxides [SO_X]), Particulate Matter (PM_{10}), Fine Particulate Matter ($PM_{2.5}$), and Lead (Pb); refer to *Table 5.5-1*, *National and California Ambient Air Quality Standards*.

CALIFORNIA AIR RESOURCES BOARD

CARB administers the air quality policy in California. The California Ambient Air Quality Standards were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the National Ambient Air Quality Standards in *Table 5.5-1*, are generally more stringent and apply to more pollutants than the National Ambient Air Quality Standards. In addition to the criteria pollutants, California Ambient Air Quality Standards have been established for visibility reducing particulates, hydrogen sulfide, and sulfates.

Table 5.5-1
National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California[1]		Federal[2]	
		Standard[3]	Attainment Status	Standards[4]	Attainment Status
Ozone (O_3)	1 Hour	0.09 ppm (180 μg/m³)	**Nonattainment**	NA[5]	NA[5]
	8 Hours	0.07 ppm (137 μg/m³)	Unclassified	0.075 ppm (147 μg/m³)	**Nonattainment**
Particulate Matter (PM_{10})	24 Hours	50 μg/m³	**Nonattainment**	150 μg/m³	**Nonattainment**
	Annual Arithmetic Mean	20 μg/m³	**Nonattainment**	NA[6]	**Nonattainment**
Fine Particulate Matter ($PM_{2.5}$)	24 Hours	No Separate State Standard		35 μg/m³	Unclassified
	Annual Arithmetic Mean	12 μg/m³	**Nonattainment**	15 μg/m³	**Nonattainment**
Carbon Monoxide (CO)	8 Hours	9.0 ppm (10 mg/m³)	Attainment	9 ppm (10 mg/m³)	Attainment
	1 Hour	20 ppm (23 mg/m³)	Attainment	35 ppm (40 mg/m³)	Attainment
Nitrogen Dioxide (NO_2)[7]	Annual Arithmetic Mean	0.030 ppm (56 μg/m³)	NA	0.053 ppm (100 μg/m³)	Attainment
	1 Hour	0.18 ppm (338 μg/m³)	Attainment	0.100 ppm	NA
Lead (Pb)	30 days average	1.5 μg/m³	Attainment	N/A	NA
	Calendar Quarter	N/A	NA	1.5 μg/m³	Attainment
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	N/A	NA	0.030 ppm (80 μg/m³)	Attainment
	24 Hours	0.04 ppm (105 μg/m³)	Attainment	0.14 ppm (365 μg/m³)	Attainment
	3 Hours	N/A	NA	N/A	Attainment
	1 Hour	0.25 ppm (655 μg/m³)	Attainment	N/A	NA
Visibility-Reducing Particles	8 Hours (10 a.m. to 6 p.m., PST)	Extinction coefficient = 0.23 km@<70% RH	Unclassified	**No Federal Standards**	
Sulfates	24 Hour	25 μg/m³	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m³)	Unclassified		
Vinyl Chloride	24 Hour	0.01 ppm (26 μg/m³)	Unclassified		

μg/m³ = micrograms per cubic meter; ppm = parts per million; km = kilometer(s); RH = relative humidity; PST = Pacific Standard Time.
N/A = Not Applicable

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, suspended particulate matter-PM_{10} and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations. In 1990, the California Air Resources Board (CARB) identified vinyl chloride as a toxic air contaminant, but determined that there was not sufficient available scientific evidence to support the identification of a threshold exposure level. This action allows the implementation of health-protective control measures at levels below the 0.010 parts per million ambient concentration specified in the 1978 standard.
2. National standards (other than ozone, particulate matter and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. EPA also may designate an area as *attainment/unclassifiable*, if: (1) it has monitored air quality data that show that the area has not violated the ozone standard over a three-year period; or (2) there is not enough information to determine the air quality in the area. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m³ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
3. Concentration is expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 mm of mercury. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of mercury (1,013.2 millibar); ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
5. The Federal 1-hour ozone standard was revoked on June 15, 2005 in all areas except the 14 8-hour ozone nonattainment Early Action Compact (EAC) areas.
6. The Environmental Protection Agency revoked the annual PM_{10} standard in 2006 (effective December 16, 2006).
7. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010).

Source: California Air Resources Board and U.S. Environmental Protection Agency, January 27, 2010.

The California Clean Air Act, which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan to achieve compliance with the California Ambient Air Quality Standards. The Air Quality Management Plan also serves as the basis for preparation of the State Implementation Plan for the State of California.

Similar to the EPA, CARB designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the California Ambient Air Quality Standards have been achieved. Under the California Clean Air Act, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous three calendar years. Highly irregular or infrequent events are not considered violations of a state standard, and are not used as a basis for designating areas as nonattainment.

Under the California Clean Air Act, the Basin is designated as a nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. Similar to the Federal Clean Air Act, all areas designated as nonattainment under the California Clean Air Act are required to prepare plans showing how the area would meet the California Ambient Air Quality Standards.

On March 12, 2009, CARB submitted recommendations for revisions to the area designations for the Federal 8-hour ozone standard. These recommendations are based on ozone air quality data collected during 2006 through 2008. As recommended, there are 21 nonattainment areas. These include all areas that were nonattainment for the previous standard and six new or expanded areas. In addition to the nonattainment areas, CARB recommends 12 areas be designated as attainment and five areas be designated as unclassified. Based on CARB's recommendation, the City of San Bernardino, which is within the South Coast Air Basin, would remain a nonattainment area. The EPA reviewed and approved the proposed recommendations on March 25, 2010.

The amendments to the California Clean Air Act establish the California Ambient Air Quality Standards and a legal mandate to achieve these standards. These standards apply to the same criteria pollutants as the Federal Clean Air Act and also include sulfate, visibility, hydrogen sulfide, and vinyl chloride; refer to *Table 5.5-1*.

STATE AIR TOXICS PROGRAM

Toxic air contaminants are another group of pollutants of concern in Southern California. There are hundreds of different types of toxic air contaminants, with varying degrees of toxicity. Sources of toxic air contaminants include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle engine exhaust. Public exposure to toxic air contaminants can result from emissions from normal operations, as well as accidental releases of hazardous materials during upset spill conditions. Health effects of toxic air contaminants include cancer, birth defects, neurological damage, and death.

California regulates toxic air contaminants through its air toxics program, mandated in Chapter 3.5 (Toxic Air Contaminants) of the *Health and Safety Code* (*Health and Safety Code* Section 39660 et seq.) and Part 6 (Air Toxics "Hot Spots" Information and Assessment) (Health and Safety Code Section 44300 et seq.). CARB, working in conjunction with the State Office of Environmental Health Hazard Assessment, identifies toxic air contaminants. Air toxic control

measures may then be adopted to reduce ambient concentrations of the identified toxic air contaminant to below a specific threshold, based on its effects on health, or to the lowest concentration achievable through use of best available control technology (BACT) for toxics. The program is administered by CARB. Air quality control agencies, including the SCAQMD, must incorporate air toxic control measures into their regulatory programs or adopt equally stringent control measures as rules within six months of adoption by CARB.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

The SCAQMD is one of 35 air quality management districts that have prepared Air Quality Management Plans to accomplish a five-percent annual reduction in emissions. The *2007 Air Quality Management Plan for the South Coast Air Basin* (*2007 Air Quality Management Plan*) relies on a multi-level partnership of governmental agencies at the Federal, State, regional, and local level. The *2007 Air Quality Management Plan* proposes policies and measures to achieve Federal and State standards for improved air quality in the Basin and those portions of the Salton Sea Air Basin (formerly named the Southeast Desert Air Basin) that are under the SCAQMD jurisdiction. The *2007 Air Quality Management Plan* includes new information on key elements such as:

- Current air quality;
- Improved emission inventories, particularly significant increases in mobile source emissions;
- An overall control strategy comprised of SCAQMD, State, and Federal Stationary and Mobile Source Control Measures, and the Southern California Association of Governments Regional Transportation Strategy and Control Measures;
- New attainment demonstration for $PM_{2.5}$ and O_3;
- Milestones to the Federal Reasonable Further Progress Plan; and
- Preliminary motor vehicle emission budgets for transportation conformity purposes.

In addition to the *2007 Air Quality Management Plan* and its rules and regulations, the SCAQMD published the *CEQA Air Quality Handbook*.[1] The *CEQA Air Quality Handbook* provides guidance to assist local government agencies and consultants in developing the environmental documents required by CEQA. With the help of the *CEQA Air Quality Handbook*, local land use planners and other consultants are able to analyze and document how proposed and existing projects affect air quality and should be able to fulfill the requirements of the CEQA review process. The SCAQMD is in the process of developing an *Air Quality Analysis Guidance Handbook* to replace the current *CEQA Air Quality Handbook.*

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SCAG serves as the Federally-designated metropolitan planning organization for the Southern California region and is the largest metropolitan planning

[1] Approved by the South Coast Air Quality Management District Governing Board in 1993.

organization in the United States. With respect to air quality planning, SCAG has prepared the *Regional Comprehensive Plan and Guide*, which includes Growth Management and Regional Mobility chapters that form the basis for the land use and transportation control portions of the *2007 Air Quality Management Plan*. SCAG is responsible under the Federal Clean Air Act for determining conformity of projects, plans, and programs with the SCAQMD.

CALIFORNIA GLOBAL CLIMATE CHANGE REGULATORY PROGRAMS

Assembly Bill 1493. In response to the transportation sector accounting for more than half of California's carbon dioxide (CO_2) emissions, Assembly Bill (AB) 1493 (AB 1493, Pavley) was enacted on July 22, 2002. AB 1493 required CARB to set greenhouse gas (GHG) emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is noncommercial personal transportation in the State. The bill required that CARB set the GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. In setting these standards, CARB must consider cost effectiveness, technological feasibility, economic impacts, and provide maximum flexibility to manufacturers. CARB adopted the standards in September 2004. These standards are intended to reduce emissions of carbon dioxide and other GHGs (e.g., nitrous oxide and methane). Some currently used technologies that achieve GHG reductions include small engines with superchargers, continuously variable transmissions, and hybrid electric drive.

Assembly Bill 32. The Legislature enacted AB 32 (AB 32, Nuñez), the California Global Warming Solutions Act of 2006, which Governor Schwarzenegger signed on September 27, 2006 to further the goals of Executive Order S-3-05. AB 32 represents the first enforceable statewide program to limit GHG emissions from all major industries, with penalties for noncompliance. CARB has been assigned to carry out and develop the programs and requirements necessary to achieve the goals of AB 32. The foremost objective of CARB is to adopt regulations that require the reporting and verification of statewide GHG emissions. This program would be used to monitor and enforce compliance with the established standards. The first GHG emissions limit is equivalent to the 1990 levels, which are to be achieved by 2020. CARB is also required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 allows CARB to adopt market-based compliance mechanisms to meet the specified requirements. Finally, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emission limitation, emission reduction measure, or market-based compliance mechanism adopted. In order to advise CARB, it must convene an Environmental Justice Advisory Committee and an Economic and Technology Advancement Advisory Committee. In December 2008, CARB adopted a scoping plan to achieve reductions in GHG emissions in California. The plan indicates how reductions in significant GHG sources would be achieved through regulations, market mechanisms, and other actions.

Executive Order S-3-05. In June 2005, Governor Schwarzenegger established California's GHG emissions reduction targets in Executive Order S-3-05. The Executive Order established the following goals: GHG emissions should be reduced to 2000 levels by 2010; GHG emissions should be reduced to 1990 levels by 2020; and GHG emissions should be reduced to 80 percent below 1990 levels by 2050. The Secretary of the California Environmental Protection Agency (the Secretary) is required to coordinate efforts of various agencies in order to collectively and efficiently reduce GHGs. Some of the agencies involved in the GHG reduction plan include Secretary of Business, Transportation, and Housing Agency, Secretary of

Department of Food and Agriculture, Secretary of Resources Agency, Chairperson of CARB, Chairperson of the Energy Commission, and the President of the Public Utilities Commission. The Secretary is required to submit a biannual progress report to the Governor and State Legislature disclosing the progress made toward GHG emission reduction targets. In addition, another biannual report must be submitted illustrating the impacts of global warming on California's water supply, public health, agriculture, and the coastline and forestry, and reporting possible mitigation and adaptation plans to combat these impacts.

Executive Order S-1-07. On January 18, 2007, California further solidified its dedication to reducing GHGs by setting a new Low Carbon Fuel Standard for transportation fuels sold within the State. Executive Order S-1-07 sets a declining standard for GHG emissions measured in carbon dioxide equivalent gram per unit of fuel energy sold in California. The target of the Low Carbon Fuel Standard is to reduce the carbon intensity of California passenger vehicle fuels by at least ten percent by 2020. The Low Carbon Fuel Standard applies to refiners, blenders, producers, and importers of transportation fuels, and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle" using the most economically feasible methods. The Executive Order requires the Secretary of the California Environmental Protection Agency to coordinate with actions of the California Energy Commission, CARB, the University of California, and other agencies to develop a protocol to measure the "life cycle carbon intensity" of transportation fuels. CARB identified the Low Carbon Fuel Standard as an early action item with regulation to be adopted and implemented by 2010.

Senate Bill 97. Senate Bill (SB) 97 of 2007 requires the California Office of Planning and Research to develop CEQA guidelines for analysis and, if necessary, the mitigation of effects of GHG emissions to the Resources Agency. These guidelines for analysis and mitigation must address, but are not limited to, GHG emissions effects associated with transportation or energy consumption. On December 30, 2009, the Natural Resources Agency adopted the CEQA Guidelines Amendments prepared by OPR, as directed by SB 97. On February 16, 2010, the Office of Administration Law approved the CEQA Guidelines Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The CEQA Guidelines Amendments became effective on March 18, 2010. These new guidelines require a survey of existing climate change analyses performed by various lead agencies under CEQA[2] In his signing statement, Governor Arnold Schwarzenegger noted:

> *Current uncertainty as to what type of analysis of greenhouse gas emissions is required under the California Environmental Quality Act has led to legal claims being asserted, which would stop these important infrastructure projects. Litigation under CEQA is not the best approach to reduce greenhouse gas emissions and maintain a sound and vibrant economy. To achieve these goals, we need a coordinated policy, not a piecemeal approach dictated by litigation.*

Senate Bill 375. SB 375 would require metropolitan planning organizations to include sustainable communities strategies in their regional transportation plans. The purpose of SB 375 would be to reduce GHG emissions from automobiles and light trucks, require CARB to provide GHG emission reduction targets from the automobile and light truck sector for 2020 and 2035 by January 1, 2010, and update the regional targets until 2050. SB 375 would require

[2] http://ceres.ca.gov/ceqa/docs/Adopted_Text_of_SB97_CEQA_Guidelines_Amendments.pdf. Accessed March 2010.

certain transportation planning and programming activities to be consistent with the sustainable communities strategies contained in the regional transportation plan. The bill would also require affected regional agencies to prepare an alternative planning strategy to the sustainable communities strategies if the sustainable communities strategy is unable to achieve the GHG emissions reduction targets. Governor Schwarzenegger signed and approved SB 375 on September 30, 2008.

Senator Steinberg, author of SB 375, is also making efforts to clean up the bill. The clean up efforts include CEQA streamlining changes for projects that are consistent with the Sustainable Community Strategy (SCS). Currently, SB 375 applies those streamlining provisions to residential and mixed-use projects. The Governor and many interest groups are also lobbying to extend those provisions to Proposition 1B Transportation projects, state highway projects, and infrastructure, retail, and commercial development. A timetable to eliminate schedule conflicts with the new eight-year housing element and the four-year Regional Transportation Plans is also being considered. In addition to a clean up bill, there will continue to be ongoing discussions with CARB to coordinate AB 32 local land use implementation strategies with SB 375, including a new proposed CARB CEQA thresholds of significance proposal to determine which projects will be subject to AB 32 requirements.

5.5.2 ENVIRONMENTAL SETTING

SOUTH COAST AIR BASIN

The South Coast Air Basin (Basin), in which the City of San Bernardino is located, is characterized as having a “Mediterranean” climate (a semi-arid environment with mild winters, warm summers, and moderate rainfall. The Basin is a 6,600-square mile area bounded by the Pacific Ocean to the west, and the San Gabriel, the San Bernardino, and the San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area in Riverside County. The Basin’s terrain and geographical location (i.e., a coastal plain with connecting broad valleys and low hills) determine its distinctive climate.

The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. The climate is mild and tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The extent and severity of the air pollution problem in the Basin is a function of the area’s natural physical characteristics (weather and topography), as well as man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and/or dispersion of pollutants throughout the Basin.

CLIMATE

The climate in the Basin is characterized by moderate temperatures and comfortable humidity, with precipitation limited to a few storms during the winter season (November through April). The average annual temperature varies little throughout the Basin, averaging 75 degrees Fahrenheit. However, with a less pronounced oceanic influence, the eastern inland portions of the Basin show greater variability in annual minimum and maximum temperatures. January is usually the coldest month at all locations, while July and August are usually the hottest months

of the year. Although the Basin has a semi-arid climate, the air near the surface is moist due to the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the Basin by offshore winds, the ocean effect is dominant. Periods with heavy fog are frequent, and low stratus clouds, occasionally referred to as "high fog," are a characteristic climate feature.

In the City of San Bernardino, the climate is typically warm during summer when temperatures tend to be in the 70s and 80s and cool during winter when temperatures tend to be in the 50s. The warmest month of the year is July with an average maximum temperature of 96 degrees Fahrenheit, while the coldest month of the year is December with an average minimum temperature of 41 degrees Fahrenheit. Temperature variations between night and day tend to be moderate during summer with a difference that can reach 33 degrees Fahrenheit, and moderate during winter with a difference of approximately 27 degrees Fahrenheit. The annual average precipitation in San Bernardino is 16.3 Inches. Rainfall in is fairly evenly distributed throughout the year. The wettest month of the year is February with an average rainfall of 3.7 inches.[3]

PHOTOCHEMICAL SMOG

The presence and intensity of sunlight are necessary prerequisites for the formation of photochemical smog. Under the influence of the ultraviolet radiation of sunlight, certain original or "primary" pollutants (mainly reactive hydrocarbons and oxides of nitrogen) react to form "secondary" pollutants (primarily oxidants). Since this process is time dependent, secondary pollutants can be formed many miles downwind from the emission sources. Because of the prevailing daytime winds and time-delayed nature of photochemical smog, oxidant concentrations are highest in the inland areas of Southern California.

TEMPERATURE INVERSIONS

Under ideal meteorological conditions and irrespective of topography, pollutants emitted into the air would be mixed and dispersed into the upper atmosphere. However, the Southern California region frequently experiences temperature inversions in which pollutants are trapped and accumulate close to the ground. The inversion, a layer of warm, dry air overlaying cool, moist marine air, is a normal condition in the southland. The cool, damp, and hazy sea air capped by coastal clouds is heavier than the warm, clear air that acts as a lid through which the marine layer cannot rise. The height of the inversion is important in determining pollutant concentration. When the inversion is approximately 2,500 feet above sea level, the sea breezes carry the pollutants inland to escape over the mountain slopes or through the passes. At a height of 1,200 feet, the terrain prevents the pollutants from entering the upper atmosphere, resulting in a settlement in the foothill communities. Below 1,200 feet, the inversion puts a tight lid on pollutants, concentrating them in a shallow layer over the entire coastal basin. Usually, inversions are lower before sunrise than during the daylight hours. Mixing heights for inversions are lower in the summer and more persistent, being partly responsible for the high levels of ozone observed during summer months in the Basin. Smog in Southern California is generally the result of these temperature inversions combining with coastal day winds and local mountains to contain the pollutants for long periods of time, allowing them to form secondary

[3] The Weather Channel, *Average Weather for San Bernardino, CA*, Accessed March 17, 2010. http://www.weather.com/outlook/events/weddings/setthedate/month/average/USCA0978?from=wed_setdate.

pollutants by reacting with sunlight. The Basin has a limited ability to disperse these pollutants due to typically low wind speeds.

The City of San Bernardino offers clear skies and sunshine, yet is still susceptible to air inversions. This traps a layer of stagnant air near the ground where it is further loaded with pollutants. These inversions cause haziness, which is caused by moisture, suspended dust and a variety of chemical aerosols emitted by trucks, automobiles, furnaces, and other sources.

MONITORED AIR QUALITY LEVELS

The SCAQMD and CARB monitor the local ambient air quality from approximately 250 air monitoring stations located across the State. Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Each monitoring station is located within a Source Receptor Area. The communities within a Source Receptor Area have similar climatology and ambient air pollutant concentrations. The City of San Bernardino is located in the Central San Bernardino Valley Source Receptor Area (Area 34).

The San Bernardino-4th Street Monitoring Station is the air monitoring station located nearest the City of San Bernardino. Air quality data from 2004 to 2008 for the San Bernardino-4th Street Monitoring Station is provided in *Table 5.5-2*, *Local Air Quality Levels*. The following air quality information briefly describes the various types of pollutants monitored at the local stations.

Table 5.5-2
Local Air Quality Levels

Pollutant	California Standard	Federal Primary Standard	Year	Maximum[2] Concentration	Days (Samples) State/Federal Std. Exceeded
1-hour Ozone (O_3)[1]	0.09 ppm for 1 hour	NA[5]	2004 2005 2006 2007 2008	0.157 ppm 0.163 0.154 0.153 0.157	55/9 54/9 57/11 48/8 62/11
8-hour Ozone (O_3)[1]	0.07 ppm for 8 hours	0.075 ppm for 8 hours	2004 2005 2006 2007 2008	0.129 ppm 0.130 0.127 0.122 0.122	79/56 72/56 72/56 72/51 87/62
Carbon Monoxide (CO)[1]	9.0 ppm for 8 hour	9.0 ppm for 8 hour	2004 2005 2006 2007 2008	3.24 ppm 2.45 2.19 2.27 1.65	0/0 0/0 0/0 0/0 0/0
Nitrogen Dioxide (NO_2)[1]	0.18 ppm for 1 hour	0.100 ppm For 1 hour	2004 2005 2006 2007 2008	0.118 ppm 0.098 0.088 0.083 0.091	0/0 0/0 0/0 0/0 0/0

Table 5.5-2 (continued)
Local Air Quality Levels

Pollutant	California Standard	Federal Primary Standard	Year	Maximum[2] Concentration	Days (Samples) State/Federal Std. Exceeded
Fine Particulate Matter ($PM_{2.5}$)[1, 4]	No Separate Standard	35μg/m³ for 24 hours	2004 2005 2006 2007 2008	93.4 μg/m³ 106.2 55.0 72.1 43.5	NA/16 NA/3 NA/9 NA/11 NA/3
Particulate Matter (PM_{10})[1, 3, 4]	50 μg/m³ for 24 hours	150 μg/m³ for 24 hours	2004 2005 2006 2007 2008	72.0 μg/m³ 66.0 78.0 232.0 44.0	4/0 4/0 5/0 6/1 0/0

Source: Aerometric Data Analysis and Measurement System (ADAM), summaries from 2004 to 2008, http://www.arb.ca.gov/adam.

ppm = parts per million; PM_{10} = particulate matter 10 microns in diameter or less; NM = not measured; μg/m³ = micrograms per cubic meter; $PM_{2.5}$ = particulate matter 2.5 microns in diameter or less; NA = not applicable.

Notes:
1. Data collected from the San Bernardino-4th Street Monitoring Station located at 24302 E. 4th St, San Bernardino, California 92410.
2. Maximum concentration is measured over the same period as the California Standards.
3. PM_{10} exceedances are based on State thresholds established prior to amendments adopted on June 20, 2002.
4. PM_{10} and $PM_{2.5}$ exceedances are derived from the number of samples exceeded, not days.
5. The Federal standard was revoked in June 2005.

Ozone. Ozone (O_3) occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends approximately ten miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" ozone) layer extends upward from about ten to 30 miles and protects life on earth from the sun's harmful ultraviolet rays (UV-B). "Bad" ozone is a photochemical pollutant, and needs volatile organic compounds (VOCs), Nitrogen Oxides (NO_X) and sunlight to form; therefore, VOCs and NO_X are ozone precursors. VOCs and NO_X are emitted from various sources throughout the City. Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight. High ozone concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

Many respiratory ailments, as well as cardiovascular disease, are aggravated by exposure to high ozone levels. Ozone also damages natural ecosystems (such as forests and foothill plant communities) and damages agricultural crops and some man-made materials (such as rubber, paint and plastics). Societal costs from ozone damage include increased healthcare costs, the loss of human and animal life, accelerated replacement of industrial equipment and reduced crop yields.

Carbon Monoxide. Carbon monoxide (CO) is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. At high concentrations, CO can reduce the oxygen-carrying capacity of the blood and cause headaches, dizziness, and unconsciousness.

Nitrogen Dioxide. Nitrogen oxides (NO_X) are a family of highly reactive gases that are a primary precursor to the formation of ground-level O_3, and react in the atmosphere to form acid rain. NO_2 (often used interchangeably with NO_X) is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of NO_2 occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations).

NO_2 can irritate and damage the lungs, and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO_2 concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO_2 may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter (PM_{10}). PM_{10} refers to suspended particulate matter, which is smaller than ten microns or ten one-millionths of a meter. PM_{10} arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate the lungs and can potentially damage the respiratory tract. On June 19, 2003, CARB adopted amendments to the statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (SB 25).

Fine Particulate Matter ($PM_{2.5}$). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and Federal $PM_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the EPA announced new $PM_{2.5}$ standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the U.S. Supreme Court reversed this decision and upheld the EPA's new standards.

On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the Basin as a nonattainment area for Federal $PM_{2.5}$ standards. On June 20, 2002, CARB adopted amendments for statewide annual ambient particulate matter air quality standards. These standards were revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

Reactive Organic Gases and Volatile Organic Compounds. Hydrocarbons are organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including reactive organic gases (ROGs) and volatile organic compounds (VOCs). Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

Global Climate Change Gases. The natural process through which heat is retained in the troposphere is called the "greenhouse effect."[4] The greenhouse effect traps heat in the troposphere through a three fold process summarized as follows: Short wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave radiation; and greenhouse gases (GHGs) in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This "trapping" of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect.

The most abundant GHGs are water vapor and carbon dioxide. Many other trace gases have greater ability to absorb and re-radiate long wave radiation; however, these gases are not as plentiful. For this reason, and to gauge the potency of GHGs, scientists have established a Global Warming Potential for each GHG based on its ability to absorb and re-radiate long wave radiation. The Global Warming Potential of a gas is determined using carbon dioxide as the reference gas with a Global Warming Potential of 1.

GHGs include, but are not limited to, the following:[5]

- *Water Vapor (H_2O)*. Although water vapor has not received the scrutiny of other GHGs, it is the primary contributor to the greenhouse effect. Natural processes, such as evaporation from oceans and rivers, and transpiration from plants, contribute 90 percent and 10 percent of the water vapor in our atmosphere, respectively.

  The primary human related source of water vapor comes from fuel combustion in motor vehicles; however, this is not believed to contribute a significant amount (less than one percent) to atmospheric concentrations of water vapor. The Intergovernmental Panel on Climate Change has not determined a Global Warming Potential for water vapor.

- *Carbon Dioxide (CO_2)*. Carbon dioxide is primarily generated by fossil fuel combustion in stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources in the past 250 years, the concentration of carbon dioxide in the atmosphere has increased 35 percent.[6] Carbon dioxide is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining Global Warming Potentials for other GHGs.

- *Methane (CH_4)*. Methane is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. In the United States, the top three sources of methane are landfills, natural gas systems, and enteric fermentation. Methane is the primary component of natural gas, which is used for space and water heating, steam production, and power generation. The Global Warming Potential of methane is 21.

- *Nitrous Oxide (N_2O)*. Nitrous oxide is produced by both natural and human related sources. Primary human related sources include agricultural soil management, animal

[4] The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface to 10 to 12 kilometers.

[5] All Global Warming Potentials are given as 100 year Global Warming Potential. Unless noted otherwise, all Global Warming Potentials were obtained from the Intergovernmental Panel on Climate Change. Climate Change (Intergovernmental Panel on Climate Change, *Climate Change, The Science of Climate Change – Contribution of Working Group I to the Second Assessment Report of the IPCC*, 1996).

[6] United States Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990 to 2004*, April 2006, http://www.epa.gov/climatechange/emissions/usinventoryreport.html.

manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The Global Warming Potential of nitrous oxide is 310.

- *Hydrofluorocarbons (HFCs)*. HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is growing, as the continued phase out of chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) gains momentum. The Global Warming Potential of HFCs range from 140 for HFC-152a to 6,300 for HFC-236fa.
- *Perfluorocarbons (PFCs)*. Perfluorocarbons are compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semi conductor manufacturing. Perfluorocarbons are potent GHGs with a Global Warming Potential several thousand times that of carbon dioxide, depending on the specific PFC. Another area of concern regarding PFCs is their long atmospheric lifetime (up to 50,000 years).[7] The Global Warming Potential of PFCs range from 5,700 to 11,900.
- *Sulfur hexafluoride (SF_6)*. Sulfur hexafluoride is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity. Sulfur hexafluoride is the most potent GHG that has been evaluated by the Intergovernmental Panel on Climate Change with a Global Warming Potential of 23,900. However, its global warming contribution is not as high as the Global Warming Potential would indicate due to its low mixing ratio compared to carbon dioxide (4 parts per trillion [ppt] in 1990 versus 365 parts per million [ppm]).[8]

In addition to the six major GHGs discussed above (excluding water vapor), many other compounds have the potential to contribute to the greenhouse effect. Some of these substances were previously identified as stratospheric O_3 depletors; therefore, their gradual phase out is currently in effect. The following is a listing of these compounds:

- *Hydrochlorofluorocarbons (HCFCs)*. HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, all developed countries that adhere to the Montreal Protocol are subject to a consumption cap and gradual phase out of HCFCs. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The Global Warming Potentials of HCFCs range from 93 for HCFC-123 to 2,000 for HCFC-142b.[9]
- *1,1,1 trichloroethane*. 1,1,1 trichloroethane or methyl chloroform is a solvent and degreasing agent commonly used by manufacturers. The Global Warming Potential of methyl chloroform is 110 times that of carbon dioxide.[10]

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7 Energy Information Administration, *Other Gases: Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride*, October 29, 2001, http://www.eia.doe.gov/oiaf/1605/gg00rpt/other_gases.html.

8 United States Environmental Protection Agency, *High GWP Gases and Climate Change*, October 19, 2006, http://www.epa.gov/highgwp/scientific.html#sf6.

9 United States Environmental Protection Agency, *Protection of Stratospheric Ozone: Listing of Global Warming Potential for Ozone Depleting Substances*, November 7, 2006, http://www.epa.gov/fedrgstr/EPA AIR/1996/January/Day 19/pr 372.html.

10 United States Environmental Protection Agency, *Protection of Stratospheric Ozone: Listing of Global Warming Potential for Ozone Depleting Substances*, November 7, 2006, http://www.epa.gov/fedrgstr/EPA AIR/1996/January/Day 19/pr 372.html.

- *Chlorofluorocarbons (CFCs)*. CFCs are used as refrigerants, cleaning solvents, and aerosols spray propellants. CFCs were also part of the EPA's Final Rule (57 FR 3374) for the phase out of O_3 depleting substances. Currently, CFCs have been replaced by HFCs in cooling systems and a variety of alternatives for cleaning solvents. Nevertheless, CFCs remain suspended in the atmosphere contributing to the greenhouse effect. CFCs are potent GHGs with Global Warming Potentials ranging from 4,600 for CFC 11 to 14,000 for CFC 13.[11]

SENSITIVE RECEPTORS

Sensitive populations are more susceptible to the effects of air pollution than the general population. Sensitive populations (or sensitive receptors) that are in proximity to localized sources of toxics and CO are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The sensitive receptors located within the Project Area are listed in *Table 5.5-3*, *Sensitive Receptors*.

Table 5.5-3
Sensitive Receptors

Type	Name	Street
Place of Worship	Templo Baptista	North H Street
	Downtown Apostolic Church	760 West 6th Street
	St Bernardine's Church	531 North F Street
	Anointed Remnant Ministries	570 West 4th Street
	First Church of Christ	736 North E Street
	Ministerio Biblico Verbo Dvn	555 North E Street
	Way World Outreach Ministry	310 West 4th Street
	St John Primitive	323 West 7th Street
	Antioch Christian Center	590 North Sierra Way
	New Miracle Christian Center	157 North E Street
	Igelisa Caminando Con Dios	191 South E Street
	Greater Faith Community Church	West Rialto Avenue
	Calvary Chapel Antorcha	761 West 2nd Street
	Catholic War Veterans	298 South D Street
	Hallelujah Temple	395 South G Street
	New Beginnings Christian Center	455 South G Street
	Victory Outreach	441 South E Street
	Door Christian Fellowship Church	West Cluster Street
	Iglesia Rios Be Agua Viva	1375 South E Street
	Community of Christ	1894 Commercenter West
	The Rock Church and World Outreach Center	2345 South Waterman Avenue

[11] United States Environmental Protection Agency, *Class I Ozone Depleting Substances*, March 7, 2006, http://www.epa.gov/ozone/ods.html.

Table 5.5-3 (continued)
Sensitive Receptors

Type	Name	Street
Schools	Juanita B Jones Elementary	700 North F Street
	Genesis 8 Learning Center	661 North Arrowhead Avenue
	Head Start: H Street	342 North H Street
	American Heritage University of Southern California	255 North D Street
	Civic Circle Preschool	265 North D Street
	Rhema College	118 South Arrowhead Avenue
	John Muir Charter School	1824 Commercenter Circle
	Concorde Career College	201 East Airport Drive
	California Baptist College	225 West Hospitality Lane
	University of Phoenix - San Bernardino Learning Center	301 East Vanderbilt Lane
	Azusa Pacific University	685 Carnegie Drive
	Argosy University Inland Empire	636 East Brier Drive
	ITT Technical Institute	670 Carnegie Drive
	La Petite Academy	855 East Hospitality Lane
	Miles of Smiles Education Center	855 East Hospitality Lane
	National University San Bernardino Academic Center	804 East Brier Drive
Hospitals	Kaiser Permanente Med Care	325 West Hospitality Lane
Libraries	San Bernardino Public Library	555 West 6th Street
Parks	Pioneer Park	West 6th Street
	Secombe Lake State Recreation Area	North Sierra Way
	Meadowbrook Park	East 3rd Street
	Municipal Baseball Park	South E Street
Senior Center	San Bernardino Senior Center	600 West 5th Street

Source: Google Earth Maps accessed March 2010.

5.5.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to air quality and global climate change. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Conflict with or obstruct implementation of the applicable air quality plan (refer to Section 8.0, Effects Found Not To Be Significant);

- Violate any air quality standard or contribute substantially to an existing or projected air quality violation based on the thresholds in the SCAQMD's "CEQA Air Quality Handbook";

- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

- Expose sensitive receptors to substantial pollutant concentrations; and/or

- Creation of objectionable odors affecting a substantial number of people (refer to Section 8.0, Effects Found Not To Be Significant).

Under CEQA, the SCAQMD is an expert commenting agency on air quality and related matters within its jurisdiction or impacting its jurisdiction. The SCAQMD reviews projects to ensure that they will not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any federal attainment plan.

The *CEQA Air Quality Handbook* provides significance thresholds for both construction and operation of projects within the SCAQMD jurisdictional boundaries. If the SCAQMD thresholds are exceeded, a potentially significant impact could result. However, ultimately the lead agency determines the thresholds of significance for impacts. If a project proposes development in excess of the established thresholds, as outlined in *Table 5.5-4*, *SCAQMD Emission Thresholds*, a significant air quality impact may occur and additional analysis is warranted to fully assess the significance of impacts.

Table 5.5-4
SCAQMD Emissions Thresholds

Phase	Pollutant (lbs/day)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Construction	75	100	550	150	150	55
Operational	55	55	550	150	150	55

ROG = reactive organic gases NOx = nitrogen oxides $PM_{2.5}$ = particulate matter less than 2.5 microns
CO = carbon monoxide SOx = sulfur oxides PM_{10} = particulate matter less than 10 microns

Source: SCAQMD, *CEQA Air Quality Handbook*, page 6-1, April 1993.

Additionally, the SCAQMD criterion recommends performing a CO hotspot analysis when a project increases the volume to capacity ratio (also called the intersection capacity utilization) by 0.02 (2 percent) for any intersection with an existing level of service (LOS) D or worse.

Based on these significance thresholds and criteria, the Project's effects have been categorized as either "effects found not to be significant" or "potentially significant impact." Feasible mitigation measures, which could avoid or minimize potentially significant impacts are identified. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a "significant unavoidable impact."

5.5.4 PROJECT IMPACTS AND MITIGATION MEASURES

SHORT-TERM CONSTRUCTION EMISSIONS

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD FACILITATE THE CONSTRUCTION OF NEW LAND USES THAT COULD GENERATE DUST AND EQUIPMENT EMISSIONS.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: The proposed project would not directly result in the construction of any new development projects. However, implementation of the proposed project could facilitate development of various public infrastructure improvements and/or public facilities, as well as facilitating more rapid development within the Project Area than might occur otherwise.

Fugitive Dust. Construction activities are a source of fugitive dust (PM_{10} and $PM_{2.5}$) emissions that may have a substantial, temporary impact on local air quality. Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations and weather conditions. Dust (PM_{10}) poses a serious health hazard alone or in combination with other pollutants. Fine Particulate Matter ($PM_{2.5}$) is mostly derived from combustion sources, such as automobiles, trucks, and other vehicle exhaust, as well as from stationary sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gasses such as NO_X and SO_X combining with ammonia. $PM_{2.5}$ components from material in the earth's crust, such as dust, are also present, with the amount varying in different locations.

Exhaust. Exhaust emissions would be generated by the operation of vehicles and equipment on the construction site, such as tractors, dozers, scrapers, backhoes, cranes, and trucks. The majority of construction equipment and vehicles would be diesel powered, which tends to be more efficient than gasoline-powered equipment. Diesel-powered equipment produces lower carbon monoxide and hydrocarbon emissions than gasoline equipment, but produced greater amounts of NO_X, SO_X, and particulates per hour of activity. The transportation of equipment and materials to and from the site, as well as construction workers traveling to and from the site, would also generate vehicle emissions during construction.

Grading/Hauling. Depending on the amount of over-excavation and re-compaction that may be necessary to create a suitable building pad, future development facilitated by the proposed project may require the import/export of fill material. Although these activities may create additional dust and PM_{10} and $PM_{2.5}$, as well as truck-related emissions, they would be mitigated to less than significant levels through implementation of standard dust control practices required as part of the grading permit (periodic site watering, covering laden trucks with tarps, and periodic street sweeping).

Asbestos. It is possible that asbestos-containing materials may exist within existing buildings that may be modified or demolished. Therefore, the possibility exists that asbestos fibers may be released into the air should no asbestos assessment or removal (if needed) take place prior to demolition. Standard practice would be to conduct an asbestos assessment for candidate buildings to determine the presence of asbestos. If identified, an asbestos abatement contractor would be retained to develop an abatement plan and remove the asbestos containing

materials, in accordance with local, State, and Federal requirements. After removal, demolition may proceed without significant concern to the release of asbestos fibers into the air.

Construction-related air quality impacts would be short-term and temporary, lasting only as long as the construction phase of the future development project. Nonetheless, construction impacts have the potential to violate Federal and State ambient air quality standards and may harm nearby sensitive receptors. The SCAQMD has established short-term thresholds for individual development projects, and it is assumed that some of the future development projects that would be implemented under the proposed project could individually exceed the SCAQMD thresholds. The *General Plan EIR* concluded that major construction activities under the General Plan Update could exceed SCAQMD's thresholds and would result in a significant impact, although individual projects may not be significant. Additionally, the *General Plan EIR* concluded that even after the application of *General Plan* Policies and mitigation measures, implementation of the General Plan Update as a whole would result in significant and unavoidable air quality impacts due to the magnitude of emissions that would be generated during construction. A statement of overriding consideration was adopted by the City for this impact.

Implementation of Mitigation Measures AQ-1 and AQ-2 would limit construction air emissions during the grading phase and ensure the use of low or zero VOC content architectural coatings for construction and maintenance activities. Compliance with Policy 12.5.3 of the *General Plan* would require dust abatement measures during project grading and construction operations. Dust abatement measures would be required in accordance with SCAQMD Rule 403 dust minimization requirements (i.e., water exposed surfaces, treat soils with soil conditioner, securely cover loads of fill, provide for street sweeping, wash mud-covered tires before trucks leave the site, etc.). Implementation of Mitigation Measures AQ-1 and AQ-2 and compliance with the *General Plan* policies would lessen construction-related impacts by reducing air pollutant emissions from construction activities. However, as concluded in the *General Plan EIR*, construction-related air quality impacts would be considered significant and unavoidable due to the magnitude of construction under the proposed project.

General Plan Goals and Policies:

NATURAL RESOURCES AND CONSERVATION ELEMENT

Goal 12.5 **Promote air quality that is compatible with the health, well being, and enjoyment of life.**

Policy 12.5.3 Require dust abatement measures during grading and construction operations.

Mitigation Measures:

AQ-1 Prior to the issuance of grading permits, the property owner/developer shall include a note on all grading plans which requires the construction contractor to implement following measures during grading. These measures shall also be discussed at the pregrade conference.

- Use low emission mobile construction equipment.
- Maintain construction equipment engines by keeping them tuned.

- Utilize existing power sources (i.e., power poles) when feasible.
- Configure construction parking to minimize traffic interference.
- Minimize obstruction of through-traffic lanes. When feasible, construction should be planned so that lane closures on existing streets are kept to a minimum.
- Schedule construction operations affecting traffic for off-peak hours to minimize traffic congestion.
- Develop a traffic plan to minimize traffic flow interference from construction activities (the plan may include advance public notice of routing, use of public transportation and satellite parking areas with a shuttle service).

(Source: *General Plan EIR* Mitigation Measure GP5.2-2A)

AQ-2 The City shall promote the use of low or zero VOC content architectural coatings for construction and maintenance activities.

(Source: *General Plan EIR* Mitigation Measure GP5.2-2B)

Level of Significance After Mitigation: Significant Unavoidable Impact.

LONG-TERM MOBILE AND STATIONARY SOURCE EMISSIONS

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD INTRODUCE FUTURE PRJOECTS THAT COULD RESULT IN AN OVERALL INCREASE IN MOBILE AND STATIONARY SOURCE EMISSIONS WITHIN THE CITY, AND WHICH MAY EXCEED SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AIR QUALITY STANDARDS.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Implementation of the proposed project would not directly construct any new development projects. However, the proposed project could facilitate the development of new commercial, industrial, and multi-family residential uses. Although the exact nature and location of future land uses are not known at this time, future development projects could introduce new stationary sources of air emissions into the Project Area.

Stationary Source Emissions

Stationary source emissions are sources of air pollutants that individually emit relatively small quantities of air pollutants, but which cumulatively may emit large quantities of emissions. Stationary source emissions would result from the use of natural gas, landscape maintenance equipment, and the use of consumer products, such as aerosol sprays. Although, the project does not propose any specific development, future emissions from stationary sources within the Project Area could be significant. Various industrial and commercial processes (e.g., dry cleaning) allowed under the proposed project would also be expected to release emissions; some of which could be hazardous. As stated in the *General Plan EIR*, these emissions are

controlled at the local and regional level through permitting and would be subject to further study and health risk assessment prior to the issuance of any necessary air quality permits. The emissions from development associated with implementation of the proposed project on a program-level would be expected to exceed the SCAQMD thresholds for ROG, NO_X, CO, PM_{10}, and $PM_{2.5}$, resulting in a significant impact. The thresholds of significance that have been recommended by the SCAQMD were established for individual development projects and are based on the SCAQMD's New Source Review emissions standards for individual sources of new emissions, such as boilers and generators. They do not apply to cumulative development or multiple projects. Air quality impacts would be regional and not confined to the San Bernardino City limits. Future development proposals would be evaluated for potential air emissions once development details have been determined and are available. Individual projects may not result in significant air quality emissions.

Emissions from new, modified, or relocated stationary source equipment are regulated extensively through SCAQMD's Regulation XIII: New Source Review Program, SCAQMD's Permitting Program, and compliance with SCAQMD's source specific regulations. Types of uses requiring permitting that are allowed under current zoning include a variety of manufacturing, fabricating, and processing businesses. All future industrial development projects would be required to comply with SCAQMD regulations and permitting requirements. Compliance with regulations and permit requirements would reduce emissions from new industrial uses. Implementation of *General Plan* Policies 12.5.1, 12.5.2, and 12.5.4 would further reduce stationary source emissions by prohibiting development of heavy polluting land uses, evaluating potential emissions of industrial land uses, and reducing emissions in accordance with SCAQMD standards. However, emissions resulting from stationary sources would remain significant due to the magnitude of development associated with the proposed project.

Mobile Source Emissions

As stated above, implementation of the proposed project would not directly construct any new development projects. However, the proposed project could facilitate the development of new commercial, industrial, and multi-family uses. Development of these uses would generate mobile source emissions.

Mobile source emissions are emissions from vehicle trips that are generated by the operation of a project. Mobile source emissions include tailpipe and evaporative emissions. Future development within the Project Area would be consistent with the land use designations contained in the *General Plan*. Therefore, the proposed project would not intensify land uses in the Project Area beyond conditions assumed in the *General Plan*. As such, future development that is facilitated by the proposed project would not likely increase the number of vehicle trips to and from the Project Area beyond buildout conditions analyzed in the *General Plan EIR*. Mobile sources are anticipated to be the largest contributor to the estimated annual average air pollutant levels, and would likely exceed the SCAQMD thresholds.

All projects developed within the Project Area would be required to satisfy applicable *General Plan EIR* mitigation measures. Furthermore, air quality impacts would be regional and not confined to the San Bernardino City limits. The destination of motor vehicles, which are the primary contributors to air pollution, vary widely and cross many jurisdictional boundaries. Future development projects would be evaluated for potential air emissions. Implementation of

General Plan Policies 6.6.1 through 6.6.8, 12.6.1 through 12.6.5, and 12.6.7 would reduce mobile air emissions by promoting smart land use patterns, encouraging pedestrian activity, requiring transportation demand management programs, and promoting public transit to minimize vehicular travel. Additionally, implementation of Mitigation Measures AQ-3 through AQ-5 would reduce mobile source emissions by implementing transportation systems management techniques, diversion of truck traffic, and utilization of fuel efficient City vehicles. Also, Chapter 17.08, Mobile Source Air Pollution Ordinance, of the *Municipal Code* discusses City efforts to improve air quality. Chapter 17.08 establishes the increase of motor vehicle registration fees within the City (in 1992) to finance the implementation of transportation measures of the SCAQMD *Air Quality Management Plan* and provisions of the California Clean Air Act. However, due to the magnitude of development and associated mobile source air quality impacts, impacts in this regard remain significant.

Health Effects

The Project Area is located in the City of San Bernardino, and is traversed by I-215, I-10, and two railroads. The proximity to I-215, I-10, and railroad rights-of-ways poses a concern for potential exposure of future development to toxic air contaminants from these sources. The Multiple Air Toxics Exposure Study III (MATES III) is a monitoring and evaluation study conducted by the SCAQMD. The MATES III study consists of a monitoring program, an updated emissions inventory of toxic air contaminants, and a modeling effort to characterize risk throughout the Basin. The study concentrates on the carcinogenic risk from exposure to air toxics. Ten monitoring locations measured toxic air contaminants (over 30 air pollutants) once every three days for two years.

The carcinogenic risk from air toxics in the SCAB, based on average concentrations at the fixed monitoring locations, is about 1,200 per million. This risk refers to the expected number of additional cancers in a population of one million individuals that are exposed over a 70-year lifetime. Under the MATES III methodology, approximately 94 percent of the risk is attributed to mobile source emissions, and approximately six percent is attributed to stationary sources. The Inland Valley San Bernardino monitoring location (nearest monitoring station to the project area) reported higher levels of risk. However, the MATES III Study found a decreasing risk for air toxics exposure compared to previous MATES studies. Additionally, the MATES III study found an estimated SCAB-wide population-weighted risk reduced by eight percent from the MATES II Study, which includes the City of San Bernardino. Although the City is located in an area of the SCAB with some of the higher concentrations of air toxics, these concentrations are declining and conditions are continuing to improve. Additionally, the ambient air toxics data from the ten fixed monitoring sites demonstrated a reduction in air toxic levels and risks.

Impact Conclusion

The *General Plan EIR* anticipated additional development within the City, including the commercial, industrial, and multi-family uses under the proposed project. This forecast growth was inclusive of the development that would occur within the Project Area and is consistent with the General Plan land use designations. The *General Plan EIR* concluded that buildout would exceed daily SCAQMD thresholds and would result in significant impacts for operational emissions, as these thresholds were designed for individual projects. Therefore, on a project-by-project basis, thresholds may not be exceeded; however, operational emissions as a result of the proposed project would be expected to be significant. Air quality impacts would be

regional and not confined to the San Bernardino City limits. The destination of motor vehicles, which are the primary contributors to air pollution, vary widely and cross many jurisdictional boundaries. Future development projects within the Project Area would be evaluated for potential air emissions once development details have been determined and are available. The development facilitated by the proposed project was considered in the General Plan EIR since the development that would occur would be consistent with the existing General Plan land use designations and Zoning Districts. Therefore, project implementation would be consistent with the analysis presented in the *General Plan EIR*, and would result in no greater air quality impacts than previously identified. Due to the amount of development that would occur under the proposed project, and consistent with the conclusions in the *General Plan EIR*, operational emissions would be expected to exceed SCAQMD thresholds. Therefore, even with implementation of *General Plan* Policies and adherence to SCAQMD requirements, long-term operational impacts would remain significant.

General Plan Goals and Policies:

CIRCULATION ELEMENT

Goal 6.6 **Promote a network of multi-modal transportation facilities that are safe, efficient, and connected to various points of the City and the region.**

Policy 6.6.1 Support the efforts of regional, state, and federal agencies to provide additional local and express bus service in the City.

Policy 6.6.2 Create a partnership with Omnitrans to identify public transportation infrastructure needs that improve mobility.

Policy 6.6.3 In cooperation with Omnitrans, require new development to provide transit facilities, such as bus shelters and turnouts, as necessary and warranted by the scale of the development.

Policy 6.6.4 Ensure accessibility to public transportation for seniors and persons with disabilities.

Policy 6.6.5 In cooperation with Omnitrans, explore methods to improve the use, speed, and efficiency for transit services. These methods might include dedicated or priority lanes/signals, reduced parking standards for selected core areas, and incorporating Intelligent Transportation System architecture.

Policy 6.6.6 Support and encourage the provision of a range of paratransit opportunities to complement bus and rail service for specialized transit needs.

Policy 6.6.7 Encourage measures that will reduce the number of vehicle-miles traveled during peak periods, including the following examples of these types of measures:

- Incentives for car-pooling and vanpooling.
- Preferential parking for car-pools and vanpools.

- Conveniently located bus stops with shelters.
- An adequate, safe, and interconnected system of pedestrian and bicycle paths

Policy 6.6.8 Promote the use of car-pools and vanpools by providing safe, convenient park-and-ride facilities.

NATURAL RESOURCES AND CONSERVATION ELEMENT

Goal 12.5 Promote air quality that is compatible with the health, well being, and enjoyment of life.

Policy 12.5.1 Reduce the emission of pollutants including carbon monoxide, oxides of nitrogen, photochemical smog, and sulfate in accordance with South Coast Air Quality Management District (SCAQMD) standards.

Policy 12.5.2 Prohibit the development of land uses (e.g. heavy manufacturing) that will contribute significantly to air quality degradation, unless sufficient mitigation measures are undertaken according SCAQMD standards.

Policy 12.5.4 Evaluate the air emissions of industrial land uses to ensure that they will not impact adjacent uses.

Goal 12.6 Reduce the amount of vehicular emissions in San Bernardino.

Policy 12.6.1 Promote a pattern of land uses which locates residential uses in close proximity to employment and commercial services and provides, to the fullest extent possible, local job opportunities and commercial service to minimize vehicular travel and associated air emissions.

Policy 12.6.2 Disperse urban service centers (libraries, post offices, social services, etc.) throughout the City to minimize vehicle miles traveled and the concomitant dispersion of air pollutants.

Policy 12.6.3 Install streetscape improvements and other amenities to encourage pedestrian activity in key City areas and reduce vehicular travel and associated air emissions.

Policy 12.6.4 Facilitate the development of centralized parking lots and structures in commercial districts to promote walking between individual businesses in lieu of the use of automobiles.

Policy 12.6.5 Require qualifying development to implement or participate in transportation demand management programs, which provide incentives for car pooling, van pools, and the use of public transit and employ other trip reduction techniques (consistent with the Circulation Element and South Coast Air Quality Management Plan).

Policy 12.6.7 Promote the use of public transit and alternative travel modes to reduce air emissions.

Policy 12.7.6 Encourage, publicly recognize, and reward innovative approaches to improve air quality.

Mitigation Measures:

AQ-3 The City shall reduce vehicle emissions caused by traffic congestion by implementing transportation systems management techniques that include synchronized traffic signals and limiting on-street parking.

(Source: General Plan EIR Mitigation Measure GP5.2-2C)

AQ-4 The City shall consider the feasibility of diverting commercial truck traffic to off-peak periods to alleviate non-recurrent congestion as a means to improve roadway efficiency.

(Source: General Plan EIR Mitigation Measure GP5.2-2D)

AQ-5 The City shall promote the use of fuel efficient vehicles such as fuel hybrids when purchasing vehicles for the City's vehicle fleet.

(Source: General Plan EIR Mitigation Measure GP5.2-2E)

Level of Significance After Mitigation: Significant Unavoidable Impact.

CARBON MONOXIDE HOTSPOTS

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD FACILITATE DEVELOPMENT THAT COULD NOT RESULT IN AN OVERALL INCREASE IN CARBON MONOXIDE HOTSPOT EMISSIONS WITHIN THE CITY.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: Carbon monoxide (CO) emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affecting residents, school children, hospital patients, the elderly, etc.).

The SCAQMD requires a quantified assessment of CO hotspots when a project increases the volume-to-capacity ratio (also called the intersection capacity utilization) by 0.02 (two percent) for any intersection with an existing level of service LOS D or worse. Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersections. However, at the programmatic stage of analysis for the proposed project, intersection capacity/queuing analyses are not performed, as no specific development is proposed and the future associated traffic numbers are unknown.

As previously noted, the City is located in the South Coast Air Basin, which is designated as an attainment/maintenance area for the Federal CO standards and an attainment area for State standards. There has been a decline in CO emissions even though vehicle miles traveled on U.S. urban and rural roads have increased. On-road mobile source CO emissions have declined 24 percent between 1989 and 1998, despite a 23 percent rise in motor vehicle miles traveled over the same 10 years. California trends have been consistent with national trends; CO emissions declined 20 percent in California from 1985 through 1997 while vehicle miles traveled increased 18 percent in the 1990s. Three major control programs have contributed to the reduced per-vehicle CO emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

A detailed carbon monoxide analysis was conducted in the Federal Attainment Plan for Carbon Monoxide (CO Plan) for the SCAQMD's 2003 Air Quality Management Plan. The locations selected for microscale modeling in the CO Plan are worst-case intersections in the SCAB, and would likely experience the highest CO concentrations. Of these locations, the Wilshire Boulevard/Veteran Avenue intersection experienced the highest CO concentration (4.6 ppm), which is well below the 35-ppm 1-hr CO Federal standard. The Wilshire Boulevard/Veteran Avenue intersection is one of the most congested intersections in Southern California with an average daily traffic (ADT) volume of approximately 100,000 vehicles per day. As the CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection, it can be reasonably inferred that CO hotspots would not be experienced at any locations within the City of San Bernardino due to the volume of traffic that would occur as a result of future development within the Project Area. Therefore, impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not Applicable.

5.5.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **AIR QUALITY EMISSIONS RESULTING FROM DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD IMPACT REGIONAL AIR QUALITY LEVELS ON A CUMULATIVELY CONSIDERABLE BASIS.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: The geographic context for air quality impacts for the City of San Bernardino is Source Receptor Area 34 of the Basin. The analysis accounts for all anticipated cumulative growth within this geographic area. However, the significance of cumulative air quality impacts is typically determined according to the project methodology employed by the SCAQMD, as the regional body with authority in this area, which has taken regional growth projections into consideration.

As discussed previously, development associated with implementation of the proposed project would likely result in emissions that exceed the SCAQMD emissions thresholds for both the construction and operational phases. The SCAQMD considers exceedance of their daily significance thresholds to lead to a significant contribution to emissions on a cumulative basis. Because the Basin is currently in a state of non-attainment for O_3, PM_{10}, and $PM_{2.5}$, the additional air pollution generated by development associated with implementation of the

proposed project would incrementally contribute to the state of non-attainment of the ambient air quality standards.

CONSTRUCTION

The proposed project would facilitate multiple construction projects within the Project Area that have the potential to exceed the SCAQMD construction emissions thresholds, which would lead to a significant contribution to emissions on a cumulative basis. Even with implementation of *General Plan* Policies and mitigation measures, cumulative construction-related emissions would likely still be significant. In addition, the *General Plan EIR* determined that implementation of the General Plan (in which the proposed project was included) would result in significant and unavoidable cumulative construction impacts due to the amount of proposed development. Also, the SCAQMD considers exceedance of daily thresholds to lead to a significant contribution to emissions on a cumulative basis. Although project-specific details (i.e., timing and amount of construction occurring concurrently) are unknown at this time, due to the amount of potential development under the proposed project, short-term construction emissions are anticipated to exceed SCAQMD daily thresholds. Therefore, significant and unavoidable cumulative construction impacts would occur.

OPERATIONAL IMPACTS

With regard to daily operational emissions and the cumulative net increase of any criteria pollutant for which the region is nonattainment, this is considered to be a potentially significant cumulative impact, due to nonattainment of O_3, PM_{10}, and $PM_{2.5}$ standards in the Basin. Future development in the Project Area, combined with other anticipated future development in the region would contribute to a cumulative annual increase in regional air pollutant emissions. As previously stated, the emissions from development associated with implementation of the proposed project would likely exceed the SCAQMD operational thresholds at the program-level. In accordance with SCAQMD methodology, any project that cannot be mitigated to a level of less than significant is also significant on a cumulative basis. In addition, the *General Plan EIR* determined that implementation of the General Plan (in which the proposed project was included) would result in significant and unavoidable cumulative operational impacts. Therefore, the cumulative operational emissions associated with the proposed project are significant on a program level.

CARBON MONOXIDE HOT SPOT IMPACTS

Cumulative development is not expected to expose sensitive receptors to substantial pollutant concentrations. Thus, this is considered to be a less than significant cumulative impact. Future ambient CO concentrations resulting from implementation of the proposed project would be substantially below National and State standards. These future predictions consider cumulative development that would occur in Source Receptor Area 34 (Central San Bernardino Valley). Therefore, the proposed project's contribution to the impact is considered less than cumulatively considerable, and the cumulative impact would be less than significant.

GLOBAL CLIMATE CHANGE

Cumulative GHG emissions could occur as a result of future development within the Project Area. Future projects within the City, including those associated with implementation of the proposed project, would be reviewed on a project-by-project basis to ensure their compliance with the City's policies as well as State GHG regulations.

Currently, there is no adopted threshold of significance for determining the cumulative significance of a project's GHG emissions on global climate change. However, the available scientific evidence suggests that even without a net increase in GHG emissions, effects would remain significant due to past and existing emissions levels. In the most recent Intergovernmental Panel on Climate Change (IPCC) assessment report (2007), the IPCC acknowledges that anthropogenic climate change and sea level rise would continue for centuries due to the time scales associated with climate processes and feedbacks even if GHG concentrations were to be stabilized.[12] The IPCC further found that both past and future anthropogenic CO_2 emissions would continue to contribute to climate change and sea level rise for more than a millennium, due to the time scales required for the removal of this gas from the atmosphere.[13] Further, the IPCC assessment noted that defining what is dangerous anthropogenic interference with the climate system and, consequently, the limits to be set for policy purposes are complex tasks that can only be partially based on science, as such definitions inherently involve normative judgments.[14]

The IPCC constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of GHGs at 400 to 450 parts per million (ppm) carbon dioxide-equivalent concentration is required to keep global mean warming below two degrees Celsius, which in turn is assumed to be necessary to avoid dangerous climate change.

California Governor Arnold Schwarzenegger issued Executive Order S-3-05 in June 2005, which established the following GHG emission reduction targets:

- 2010: Reduce GHG emissions to 2000 levels;
- 2020: Reduce GHG emissions to 1990 levels; and,
- 2050: Reduce GHG emissions to 80 percent below 1990 levels.

Assembly Bill 32 requires that CARB determine what the statewide GHG emissions level was in 1990, and approve a statewide GHG emissions limit that is equivalent to that level, to be achieved by 2020. CARB has approved a 2020 emissions limit of 427 metric tons of CO_2 equivalent ($MTCO_2eq$).

[12] Intergovernmental Panel on Climate Change, *Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, 2007.*
[13] Ibid.
[14] Ibid.

Due to the nature of global climate change, it is not anticipated that any single development project would have a substantial effect on global climate change. It is difficult to deem a single development as individually responsible for a global temperature increase. In actuality, GHG emissions from the proposed project would combine with emissions emitted across California, the United States, and the world to cumulatively contribute to global climate change.

Global Climate Change Analysis

Population growth anticipated to occur under the proposed project is expected to result in increased emissions of GHGs, largely due to increased vehicle miles traveled, as well as increased energy consumption and waste generation. As discussed previously, increased emissions of GHGs could contribute to global climate change patterns and the adverse global environmental effects thereof. Increased concentrations of GHG emissions could also potentially conflict with the requirement of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020.

Direct project-related GHG emissions include emissions from construction activities, area sources, mobile sources, and indirect sources. GHG emissions include CO_2, N_2O, and CH_4 emissions of the proposed project. The proposed project is not anticipated to generate other forms of GHG emissions in quantities that would facilitate a meaningful analysis. As no specific development proposals have yet been formulated, it would be too speculative to estimate the amount of direct GHG emissions resulting from the implementation of the proposed project.

Indirect sources of GHGs from implementation of the proposed project would include those from electricity consumption, water supply, and treatment and disposal of municipal, industrial, and other solid waste (which produces significant amounts of CH_4). As no specific development proposals have yet been formulated, it would be speculative to estimate the amount of indirect GHG emissions resulting from the implementation of the proposed project. However, due to the amount of development that would occur under the proposed project (including 5,681,674 square feet of commercial uses, 518,916 square feet of industrial uses, and 1,833 units of multi-family residential uses), it is anticipated that the sum of direct and indirect GHG emissions would conflict with the requirements of AB 32 to reduce statewide GHG emissions. The *General Plan EIR* determined that CO_2 emissions have been linked to the phenomena known as "global warming", but that CO_2 emissions are unregulated and there are no thresholds for their release. The *General Plan EIR* stated that CO_2 emissions do not jeopardize the attainment status of the Basin and, therefore, were omitted from further discussion in the *General Plan EIR*. However, due to the amount of development that would occur under the proposed project, it is anticipated that the resultant GHG emissions would conflict with the requirements of AB 32 to reduce statewide GHG emissions.

General Plan Policies 6.6.1 through 6.6.8, 12.6.1 through 12.6.5, and 12.6.7 promote smart land use patterns, encourage pedestrian activity, require transportation demand management programs, and promote public transit to minimize vehicular travel. Reduction in vehicle miles traveled inherently reduces GHG emissions. Additionally, GHG emissions resulting from the proposed project would be reduced by *General Plan* Policies 13.1.1, 13.1.2, 13.1.5 through 13.1.7, and 13.1.9, which aim to reduce the City's electricity use, ensure incorporation of energy conservation features, and encourage energy-efficient design in new developments. *General Plan* Policies 13.2.3 and 13.2.4 ensure water conservation measures that would reduce project-related GHGs from water consumption.

Compliance with the Attorney General's Recommendations

The California Office of the Attorney General has established recommended measures for projects to reduce GHG emissions.[15] A list of the Attorney General's recommended measures and the project's compliance with each measure are listed in *Table 5.5-5*, *Compliance with the Attorney General's Recommendations*.

In addition to being compliant with many of the Attorney General's recommended design features, the proposed project is also consistent with the California Environmental Protection Agency Climate Action Team proposed early action measures to mitigate climate change. These early action measures are designed to ensure that projects meet the Governor's climate reduction targets, and are documented in the *Climate Action Team Report to Governor Schwarzenegger at the Legislature*, March 2006.

Table 5.5-5
Compliance with the Attorney General's Recommendations

Recommended Measures	Compliance with Measures
Efficiency	
Design buildings to be energy efficient. Site buildings to take advantage of shade, prevailing winds, landscaping and sun screens to reduce energy use.	**Consistent.** The proposed project would be required to adhere to the Policies established in the *General Plan*. *General Plan* Policy 13.1.1 aims to reduce the City's electricity use by 10 percent. Also, Policies 13.1.2 and 13.1.5 ensure the incorporation of energy conservation features into new project design, and encourage energy-efficient retrofitting of existing buildings. *General Plan* Policy 13.1.6 considers programs awarding incentives to projects installing energy conservation measures. The incorporation of these energy efficiency measures would contribute to a reduction in GHG emissions.
Install efficient lighting and lighting control systems. Use daylight as an integral part of lighting systems in buildings.	
Install light colored "cool" roofs, cool pavements, and strategically placed shade trees.	
Install energy efficient heating and cooling systems, appliances and equipment, and control systems.	
Install light emitting diodes (LEDs) for traffic, street and other outdoor lighting.	
Limit the hours of operation of outdoor lighting.	
Provide education on energy efficiency.	
Renewable Energy	
Install solar and wind power systems, solar and tankless hot water heaters, and energy-efficient heating ventilation and air conditioning. Educate consumers about existing incentives.	**Consistent**. The *General Plan* includes Policy 13.1.9, which encourages the increased use of passive and active solar and wind design in existing and proposed development. These renewable measures could include orienting buildings to maximize exposure to cooling effects of prevailing winds, daylighting design, natural ventilation, space planning, thermal massing, and locating landscaping and landscape structures to shade buildings.

[15] California Office of the Attorney General, *The California Environmental Quality Act Addressing Global Warming Impacts at the Local Agency Level*, updated May 21, 2008.

Table 5.5-5 (continued)
Compliance with the Attorney General's Recommendations

Recommended Measures	Compliance with Measures
Water Conservation and Efficiency	
Create water-efficient landscapes.	**Consistent**. Future development projects within the Project Area would be required to comply with the City's *Municipal Code Chapter 17.06*, Water Wise Landscape Program, includes standards related to landscape and maintenance water conservancy. Additionally, *General Plan* Policy 13.2.3 considers incentives and programs for projects implementing water conservation measures (i.e., replacing aging, leaking, and/or inefficient plumbing with more efficient, water-saving plumbing). Also, Policy 13.2.4 requires the use of reclaimed water for landscape irrigation and industrial projects.
Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.	
Use reclaimed water for landscape irrigation in new developments. Install the infrastructure to deliver and use reclaimed water.	
Design buildings to be water-efficient. Install water-efficient fixtures and appliances.	
Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces) and control runoff.	
Restrict the use of water for cleaning outdoor surfaces and vehicles.	
Provide education about water conservation and available programs and incentives.	
Solid Waste Measures	
Provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.	**Consistent**. The proposed project would comply with *General Plan* Policies 9.5.1 and 9.5.3, which include the installation of public trash receptacles along City streets in commercial areas, and aim to reduce the amount of solid waste disposed of in landfills. Also, *General Plan* Policies 9.5.4 through 9.5.6 address the development of local recycling programs, and the implementation of a public education recycling program.
Provide education and publicity about reducing waste and available recycling services.	
Land Use Measures	
Include mixed-use, infill, and higher density in development projects to support the reduction of vehicle trips, promote alternatives to individual vehicle travel, and promote efficient delivery of services and goods.	**Consistent**. The proposed project would facilitate infill and brownfield development. Although, the proposed project would not alter the land uses designated by the General Plan, it would encourage infill development and renewal as opposed to expanding outward. Furthermore, *General Plan* Policies 6.6.1 through 6.6.8 consist of transportation measures that are intended to reduce vehicle trips and related emissions.
Educate the public about the benefits of well-designed, higher density development.	
Incorporate public transit into project design.	
Preserve and create open space and parks. Preserve existing trees, and plant replacement trees at a set ratio.	**Consistent.** The proposed project would be subject to compliance with *Municipal Code* Section 12.40, *Street Trees*, which requires adherence to the City's Street Tree Master Plan. Tree removal and replacement would be conducted in accordance with regulations of the Street Tree Master Plan. Also, minimal trees would be removed with implementation of the proposed project, as the majority of the project facilitates infill development.
Include pedestrian and bicycle-only streets and plazas within developments. Create travel routes that ensure that destinations may be reached conveniently by public transportation, bicycling or walking.	**Consistent.** As stated above, the proposed project would incorporate transportation measures that would encourage the use of alternative transportation modes and would reduce vehicle trips.

Table 5.5-5 (continued)
Compliance with the Attorney General's Recommendations

Recommended Measures	Compliance with Measures
Transportation and Motor Vehicles	
Limit idling time for commercial vehicles, including delivery and construction vehicles.	**Consistent.** Future development projects within the Project Area would be required to limit idle times pursuant to *Title 13* of the *California Code of Regulations*, Section 2485.
Promote ride sharing programs by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading and waiting areas for ride sharing vehicles, and providing a web site or message board for coordinating rides.	**Consistent.** Future development projects in the Project Area would consider ride sharing programs in addition to the existing public transit, and transportation demand measures as discussed above and included in *General Plan* Policies.
Create car sharing programs. Accommodations for such programs include providing parking spaces for the car share vehicles at convenient locations accessible by public transportation.	
For commercial projects, provide adequate bicycle parking near building entrances to promote cyclist safety, security, and convenience. For large employers, provide facilities that encourage bicycle commuting, including locked bicycle storage or covered or indoor bicycle parking.	**Consistent.** Based on the above transportation demand measures, future development projects would be required to reduce vehicle trips and would potentially include bicycle facilities to achieve that goal.

Source: State of California Department of Justice, Attorney General's Office, *The California Environmental Quality Act Addressing Global Warming Impacts at the Local Agency Level,* updated May 21, 2008.

Consistency with the CARB Scoping Plan

A complete list of CARB Scoping Plan Measures/Recommended Actions needed to obtain AB 32 goals, as well as the Governor's Executive Order, are referenced in *Table 5.5-6*, *Recommended Actions for Climate Change Proposed Scoping Plan*. Of the 39 measures identified, those that would be considered to be applicable to the proposed project would primarily be those actions related to electricity and natural gas use and water conservation. Consistency of the proposed project with these measures is evaluated by each source-type measure below. *Table 5.5-6* identifies which CARB Recommended Actions applies to the proposed project, and of those, whether the proposed project is consistent therewith.

Table 5.5-6
Recommended Actions for Climate Change Proposed Scoping Plan

ID #	Sector	Strategy Name	Applicable to Project?	Will Project Conflict With Implementation?
T-1	Transportation	Pavley I and II – Light-Duty Vehicle GHG Standards	No	No
T-2	Transportation	Low Carbon Fuel Standard (Discrete Early Action)	No	No
T-3	Transportation	Regional Transportation-Related GHG Targets	**Yes**	No
T-4	Transportation	Vehicle Efficiency Measures	No	No
T-5	Transportation	Ship Electrification at Ports (Discrete Early Action)	No	No

Table 5.5-6 (continued)
Recommended Actions for Climate Change Proposed Scoping Plan

ID #	Sector	Strategy Name	Applicable to Project?	Will Project Conflict With Implementation?
T-6	Transportation	Goods-movement Efficiency Measures	**Yes**	No
T-7	Transportation	Heavy Duty Vehicle Greenhouse Gas Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)	No	No
T-8	Transportation	Medium and Heavy-Duty Vehicle Hybridization	No	No
T-9	Transportation	High Speed Rail	No	No
E-1	Electricity and Natural Gas	Increased Utility Energy efficiency programs More stringent Building and Appliance Standards	**Yes**	No
E-2	Electricity and Natural Gas	Increase Combined Heat and Power Use by 30,000GWh	No	No
E-3	Electricity and Natural Gas	Renewable Portfolio Standard	No	No
E-4	Electricity and Natural Gas	Million Solar Roofs	No	No
CR-1	Electricity and Natural Gas	Energy Efficiency	**Yes**	No
CR-2	Electricity and Natural Gas	Solar Water Heating	No	No
GB-1	Green Buildings	Green Buildings	**Yes**	No
W-1	Water	Water Use Efficiency	**Yes**	No
W-2	Water	Water Recycling	**Yes**	No
W-3	Water	Water System Energy Efficiency	No	No
W-4	Water	Reuse Urban Runoff	No	No
W-5	Water	Increase Renewable Energy Production	No	No
W-6	Water	Public Goods Charge (Water)	No	No
I-1	Industry	Energy Efficiency and Co-benefits Audits for Large Industrial Sources	**Yes**	No
I-2	Industry	Oil and Gas Extraction GHG Emission Reduction	No	No
I-3	Industry	GHG Leak Reduction from Oil and Gas Transmission	No	No
I-4	Industry	Refinery Flare Recovery Process Improvements	No	No
I-5	Industry	Removal of Methane Exemption from Existing Refinery Regulations	No	No
RW-1	Recycling and Waste Management	Landfill Methane Control (Discrete Early Action)	No	No
RW-2	Recycling and Waste Management	Additional Reductions in Landfill Methane – Capture Improvements	No	No
RW-3	Recycling and Waste Management	High Recycling/Zero Waste	**Yes**	No
F-1	Forestry	Sustainable Forest Target	No	No
H-1	High Global Warming Potential Gases	Motor Vehicle Air Conditioning Systems (Discrete Early Action)	No	No
H-2	High Global Warming Potential Gases	SF_6 Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)	No	No

Table 5.5-6 (continued)
Recommended Actions for Climate Change Proposed Scoping Plan

ID #	Sector	Strategy Name	Applicable to Project?	Will Project Conflict With Implementation?
H-3	High Global Warming Potential Gases	Reduction in Perflourocarbons in Semiconductor Manufacturing (Discrete Early Action)	No	No
H-4	High Global Warming Potential Gases	Limit High GWP Use in Consumer Products (Discrete Early Action, Adopted June 2008)	No	No
H-5	High Global Warming Potential Gases	High GWP Reductions from Mobile Sources	No	No
H-6	High Global Warming Potential Gases	High GWP Reductions from Stationary Sources	No	No
H-7	High Global Warming Potential Gases	Mitigation Fee on High GWP Gases	No	No
A-1	Agriculture	Methane Capture at Large Dairies	No	No

Source: California Air Resources Board, *Assembly Bill 32 Scoping Plan*, October 2008.

AB 32 requires California to reduce its GHG emissions by approximately 28 to 33 percent below business as usual. CARB identified reduction measures to achieve this goal as set forth in the CARB Scoping Plan. Thus, projects that are consistent with the CARB Scoping Plan are also consistent with the 28 to 33 percent reduction below business as usual required by AB 32. The proposed project would facilitate development that would directly generate GHG emissions. Potential indirect GHG emissions could also be generated by incremental electricity consumption and waste generation. A detailed discussion of each applicable measure and if the proposed project conflicts with its implementation is provided below.

Transportation

Action T-3 is based on the requirements of SB 375 which establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions. Through the SB 375 process, regions will work to integrate development patterns and the transportation network in a way that achieves the reduction of GHG emission while meeting housing needs and other regional planning objectives. SB 375 requires CARB to develop, in consultation with SCAG, passenger vehicle GHG emissions reduction targets for 2020 and 2035 by September 30, 2010. As the City of San Bernardino is within the SCAG area, future development projects within the proposed project area would be consistent with Action T-3.

Action T-6 refers to the improvement of efficiency in goods movement activities. T-6 mainly addresses ports, but also includes discussion on trucks and related facilities. The *General Plan* Circulation Element addresses the convenience of the movement of people and goods throughout the City. *General Plan* Policy 6.7.1 addresses the accommodation of railroad services that allows for the movement of people and goods while minimizing their impact on adjacent land uses. Also, *General Plan* Policy 6.4.3 encourages the evaluation and proposal of solutions to regional transportation problems, which would improve regional goods movement efficiency. Therefore, the proposed project would be consistent with Recommended Action T-6.

Electricity and Natural Gas

Action E-1 aims to reduce electricity demand by increased efficiency of Utility Energy Programs and adoption of more stringent building and appliance standards. As discussed above, the proposed project would be consistent with the City's *General Plan*, which aims to reduce the City's electricity use by 10 percent, encourages energy-efficient retrofitting of existing buildings, encourages energy efficient design and conservation, and considers a program that provides incentives for projects installing energy conservation measures. The *General Plan* also encourages the use of passive and active solar and wind design and ensures that new development consider the ability of adjacent properties to take advantage of energy conservation design. As a result, it is anticipated that future development associated with implementation of the proposed project would incorporate energy efficient features into future projects. Therefore, the proposed project would help implement and would not conflict with Action E-1.

Action CR-1 refers to energy efficiency. Key energy efficiency strategies would include codes and standards, existing buildings, improved utility programs, solar water heating, and combined heat and power, among others. As previously stated, the *General Plan* includes multiple policies which encourage energy efficient design and conservation measures, and considers incentive programs for projects including energy conservation measures. Therefore, the proposed project would not obstruct implementation of Action CR-1.

Green Buildings

Action GB-1 expands the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. The City's *General Plan* encourages energy efficiency in buildings and requires the compliance with *Title 24* of the *California Administrative Code* and considers incentives to go beyond these guidelines. Additionally, the proposed project would not alter any land use designations outlined in the *General Plan*, and is, therefore, consistent with and would not obstruct this Recommended Action. Also, *General Plan* Policy 13.1.8 aims to educate the public regarding the need for energy conservation, environmental stewardship, and sustainability techniques that would achieve greater energy and resource efficiency, such as the U.S. Green Building Council's "Leadership in Energy and Environmental Design" (LEED) building standards. Also, Policy 13.1.10 considers the adoption of an ordinance relating to energy conservation and the incorporation of LEED standards.

Water Use

Recommended Action W-1 pertains to implementation water use efficiency measures. The City's *Municipal Code Article IV*, Landscaping and Water Conservation, includes standards related to landscape and maintenance water conservancy. Future projects within the Project Area would be required to comply with the City's *Municipal Code Chapter 17.06*, Water Wise Landscape Program, which includes standards related to landscape and maintenance water conservancy. Additionally, *General Plan* Policy 13.2.3 considers incentives and programs for projects implementing water conservation measures (i.e., replacing aging, leaking, and/or inefficient plumbing with more efficient, water-saving plumbing). The proposed project would not alter any land use designations outlined in the *General Plan*, and is, therefore, consistent with and would not obstruct this Action.

Action W-2 water recycling is part of the water use efficiency measures intended to reduce water usage and energy consumption. As stated above, the proposed project would be required to comply with the Water Wise Landscape Program. Also, Policy 13.2.4 requires the use of reclaimed water for landscape irrigation and industrial projects. The proposed project would not obstruct Action W-2.

Industry

Recommended Action I-1 would apply to the direct GHG emissions at major industrial facilities. Air Quality Element *General Plan* Policy 12.5.4 requires the evaluation of air emissions from industrial land uses to ensure that they will not impact adjacent uses. Also, Policy 12.5.2 prohibits the development of land uses (e.g. heavy manufacturing) that will contribute significantly to air quality degradation, unless sufficient mitigation is incorporated in accordance with SCAQMD standards. Therefore, the proposed project would be consistent with Recommended Action I-1.

Recycling and Waste Management

RW-3 relates to high recycling/zero waste and would apply to the proposed project. The proposed project would comply with *General Plan* Policies 9.5.1 and 9.5.3, which include the installation of public trash receptacles along City streets in commercial areas, and aim to reduce the amount of solid waste disposed of in landfills. Also, *General Plan* Policies 9.5.4 through 9.5.6 address the development of local recycling programs, and the implementation of a public education recycling program. Also, the *General Plan EIR* states that City has achieved a 45 percent reduction in the total amount of refuse produced due to the implementation of waste diversion programs. The City anticipates meeting the 50 percent waste diversion requirements with implementation of *General Plan* Policies 9.5.3 through 9.5.6 which address waste reduction in landfills and the implementation of local recycling programs. Therefore, future development associated with implementation of the proposed project would also participate in waste diversion efforts. The proposed project would comply with Recommended Action RW-3.

Conclusion

The proposed project would promote the rehabilitation and updating of existing uses, promote the use of compact mixed-use, encourage the efficient use of infill parcels, and encourage the overall enhancement of the area.

As previously stated, the proposed project is anticipated to generate a significant amount of GHG emissions due to the amount of development that would occur under the proposed project. However, the proposed project would adhere to *General Plan* policies, including those addressing transportation, energy, solid waste, and water efficiency measures (which would inherently reduce GHG emissions). AB 32 requires the reduction of GHG emissions to 1990 levels that would require a 28 to 33 percent reduction in “business as usual” GHG emissions for the entire State. Due to the amount of development proposed under the proposed project (including 5,681,674 square feet of commercial uses, 518,916 square feet of industrial uses, and 1,833 multi-family residential units), the proposed project could hinder the statewide reduction goals of AB 32 on a program level basis.

The City's process for the evaluation of discretionary projects includes environmental review and documentation pursuant to CEQA, as well as analysis of those projects for consistency with the goals, policies, and recommendations of the *General Plan*. In general, implementation of the policies in the *General Plan*, as well as compliance with Federal, State, and local regulations would avoid or reduce their incremental contribution to the significant worldwide increase in GHG emissions. However, for some projects it is possible that adherence to *General Plan* Policies may not adequately avoid or reduce incremental impacts, and such projects would require additional mitigation measures. For each future discretionary project requiring mitigation (i.e., measures that go beyond what is required by existing programs, plans, and regulations), project specific measures would be identified with the goal of reducing incremental project level impacts to less than significant or the incremental contributions of a project may remain significant and unavoidable where no feasible mitigation exists. Where mitigation is determined necessary and feasible, these measures would be included in a Mitigation Monitoring and Reporting Program for the project. The measures may be updated, expanded, and refined when applied to specific future projects proposed under the proposed project based on project specific design and changes in existing conditions, and local, State, and Federal laws.

The degree of future impacts and applicability, feasibility, and success of future mitigation measures cannot be adequately determined for each specific future project at this programmatic level of analysis. As stated above, reducing GHG emissions to 1990 levels would require a 28 to 33 percent reduction in "business as usual" GHG emissions for the entire State. Although the project includes mitigation measures that would reduce GHG emissions, there are no specific development proposals for the proposed project and the City has not developed a Climate Action Plan or Greenhouse Gas Reduction Plan. Therefore, an accurate correlation cannot be made at this stage between GHG emissions from future development of the proposed project and extent of potential GHG reductions. Future development within the Project Area would need to be analyzed on a project-by-project basis to determine the extent of each project's potential contribution to global climate change and appropriate mitigation measures specific to each project. Thus, cumulative operational and climate change impacts would be significant and unavoidable at this program level of analysis.

General Plan Goals and Policies:

NATURAL RESOURCES AND CONSERVATION ELEMENT

Refer to the following Goal and Policies previously identified:

- Goal 12.6
- Policy 12.6.1
- Policy 12.6.2
- Policy 12.6.3
- Policy 12.6.4
- Policy 12.6.5
- Policy 12.6.7

CIRCULATION ELEMENT

Refer to the following Goal and Policies previously identified:

- Goal 6.6
- Policy 6.6.1
- Policy 6.6.2
- Policy 6.6.3
- Policy 6.6.4
- Policy 6.6.5
- Policy 6.6.6
- Policy 6.6.7
- Policy 6.6.8

Policy 6.7.1 Accommodate railroad services that allow for the movement of people and goods while minimizing their impact on adjacent land uses.

ENERGY AND WATER CONSERVATION ELEMENT

Goal 13.1 Conserve scarce energy resources.

Policy 13.1.1 Reduce the City's ongoing electricity use by 10 percent and set an example for residents and businesses to follow.

Policy 13.1.2 Ensure the incorporation of energy conservation features in the design of all new construction and site development in accordance with State Law.

Policy 13.1.5 Encourage energy-efficient retrofitting of existing buildings throughout the City.

Policy 13.1.6 Consider program that awards incentives to projects that install energy conservation measures, including technical assistance and possible low-interest loans.

Policy 13.1.7 Ensure that new development consider the ability of adjacent properties to utilize energy conservation design.

Policy 13.1.8 Educate the public regarding the need for energy conservation, environmental stewardship, and sustainability techniques and about systems and standards that are currently available for achieving greater energy and resource efficiency, such as the U.S. Green Building Council's "Leadership in Energy and Environmental Design" (LEED) standards for buildings.

Policy 13.1.9 Encourage increased use of passive and active solar and wind design in existing and new development (e.g., orienting buildings to maximize exposure to cooling effects of prevailing winds, daylighting design, natural ventilation, space planning, thermal massing and locating landscaping and landscape structures to shade buildings).

Policy 13.1.10 Consider adopting an ordinance relating to energy conservation, environmental stewardship, and sustainability for new development that incorporates the LEED standards.

Goal 13.2 Manage and protect the quality of the City's surface waters and ground water basins.

Policy 13.2.3 Consider the establishment of incentives, funding programs, or a rebate program for projects that implement water conservation measures, such as replacing aging, leaking, and/or inefficient plumbing with more efficient, water-saving plumbing.

Policy 13.2.4 Require the use of reclaimed water for landscape irrigation and other non-contact uses for industrial projects, golf courses, and freeways.

Mitigation Measures: Refer to Mitigation Measures AQ-3 through AQ-5. No additional mitigation measures are required.

Level of Significance After Mitigation: Significant and unavoidable impact for cumulative short-term emissions and cumulative long-term emissions, including global climate change.

5.5.6 SIGNIFICANT UNAVOIDABLE IMPACTS

The proposed project would result in a significant and unavoidable impact for the following areas:

- Construction-related Emissions – Due to the magnitude of project-related emissions associated with future development and infrastructure projects facilitated by the proposed project, construction-related emissions are considered significant and unavoidable.

- Operational Emissions – During the operational phase, potential development within the Project Area would result in a net increase in regional emissions of ROG, NO_X, SO_2, CO, PM_{10}, and $PM_{2.5}$ from the operation of both stationary and mobile sources. Mitigation measures and General Plan Policies identified above would reduce the potential air quality impacts to the degree feasible, but emissions are anticipated to remain above SCAQMD significance thresholds. Therefore, operation of the proposed project would have a significant and unavoidable impact.

- Cumulative Construction-Related Emissions – The associated Implementation Action requires Best Available Control Measures to be incorporated to reduce construction emissions below daily emissions standards established by the SCAQMD. These Best Available Control Measures include procedures to control emissions of particulate matter, ozone, and NO_X (an ozone precursor). However, even with implementation of the policies and implementation actions, cumulative construction-related emissions would not be reduced to a less than significant level. Thus, significant and unavoidable impacts would occur in this regard.

- Cumulative Operational Emissions – Many of the individual projects would be small and generate mobile and stationary emissions that do not exceed the SCAQMD's recommended thresholds of significance. With regard to daily operational emissions and the cumulative net increase of any criteria pollutant for which the region is nonattainment, this is considered to be a potentially significant cumulative impact, due to nonattainment of O_3 and PM_{10}, and $PM_{2.5}$ standards in the Basin. The contribution of daily operational emissions from the growth associated with the proposed project could be cumulatively considerable. This cumulative impact is considered to be significant and unavoidable.

- Cumulative GHG Emissions – When considering the proposed project as a whole, proposed amount of development under the proposed project would be expected to produce a significant amount of GHG emissions. Many of the individual projects would be small and generate nominal amounts of GHGs. However, as global climate change is cumulatively considerable, future project GHG contributions associated with the proposed project could result in a significant cumulative impact. Although the proposed project would be required to adhere to the previously identified General Plan Policies regarding vehicle emissions reductions and energy and water efficiency, it would be too speculative to quantify GHG emissions and reductions from the proposed project, as project specific details are unknown at this time. Therefore, the contribution of GHG emissions from the growth associated with the proposed project could be cumulatively considerable. This cumulative impact is considered to be significant and unavoidable.

All other impacts related to air quality associated with implementation of the proposed project would be less than significant with compliance with the policies in the General Plan. If the Redevelopment Agency approves the proposed project, the Redevelopment Agency shall be required to cite their findings in accordance with *CEQA Guidelines* Section 15091 and prepare a Statement of Overriding Considerations in accordance with *CEQA Guidelines* Section 15093.

5.5.7 SOURCES CITED

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SECTION 5.6
NOISE

5.6 NOISE

This section focuses on the potential noise and vibration impacts of the proposed project. Potential noise and vibration impacts considered in this analysis include effects that would be generated by the proposed project on nearby sensitive land uses, as well as the existing noise from adjacent uses and highways that could impact proposed land uses in the Project Area.

5.6.1 REGULATORY SETTING

It is difficult to specify noise levels that are generally acceptable to everyone; what is annoying to one person may be unnoticed by another. Standards may be based on documented complaints in response to documented noise levels, or based on studies of the ability of people to sleep, talk, or work under various noise conditions.

This section summarizes the laws, ordinance, regulations, and standards that are applicable to the project. Regulatory requirements related to environmental noise are typically promulgated at the local level. However, Federal and State agencies provide standards and guidelines to the local jurisdictions.

STATE OF CALIFORNIA GUIDELINES

The State of California Office of Planning and Research (OPR) *Noise Element Guidelines* include recommended interior and exterior level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The *OPR Guidelines* describe the compatibility of various land uses with a range of environmental noise levels in terms of dBA CNEL.

A noise environment of 50 dBA CNEL to 60 dBA CNEL is considered to be “normally acceptable” for residential uses. The State indicates that locating residential units, parks, and institutions (i.e., churches, schools, libraries, and hospitals) in areas where exterior ambient noise levels exceed 65 dBA CNEL is undesirable. The OPR recommendations also note that, under certain conditions, more restrictive standards than the maximum levels cited may be appropriate. As an example, the standards for quiet suburban and rural communities may be reduced by 5 to 10 dB to reflect their lower existing outdoor noise levels in comparison with urban environments.

In addition, *Title 25, Section 1092* of the *California Code of Regulations*, sets forth requirements for the insulation of multiple-family residential dwelling units from excessive and potentially harmful noise. Whenever multiple-family residential dwelling units are proposed in areas with excessive noise exposure, the developer must incorporate features into the building’s design that reduce interior noise levels to 45 dBA CNEL.

Table 5.6-1, *Noise and Land Use Compatibility Matrix*, illustrates the State guidelines established by the State Department of Health Services for acceptable noise levels for each county and city. These standards and criteria are incorporated into the land use planning process to reduce future noise and land use incompatibilities. This table is the primary tool that allows the City to ensure integrated planning for compatibility between land uses and outdoor noise.

Table 5.6-1
Noise and Land Use Compatibility Matrix

Land Use Category	Community Noise Exposure (L_{dn} or CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential - Low Density, Single-Family, Duplex, Mobile Homes	50 - 60	55 - 70	70-75	75-85
Residential - Multiple Family	50 - 65	60 - 70	70 - 75	70 – 85
Transient Lodging - Motel, Hotels	50 - 65	60 - 70	70 - 80	80 – 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	80 – 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 - 70	NA	65 – 85
Sports Arenas, Outdoor Spectator Sports	NA	50 - 75	NA	70 – 85
Playgrounds, Neighborhood Parks	50 - 70	NA	67.5 - 75	72.5 – 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 70	NA	70 - 80	80 – 85
Office Buildings, Business Commercial and Professional	50 - 70	67.5 - 77.5	75 - 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 - 75	70 - 80	75 - 85	NA

NA: Not Applicable

Source: Office of Planning and Research, California, *General Plan Guidelines*, October 2003.

Normally Acceptable – Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
Conditionally Acceptable – New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.
Normally Unacceptable – New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
Clearly Unacceptable – New construction or development should generally not be undertaken.

CITY OF SAN BERNARDINO NOISE STANDARDS

The City of San Bernardino maintains a comprehensive Noise Ordinance (Section 19.20.030.15) within its *Development Code* which specifies the maximum acceptable levels of noise for residential uses in the City. According to the Noise Ordinance, in residential areas, no exterior noise level shall exceed 65 dBA and no interior noise level shall exceed 45 dBA.

The City's *Municipal Code* also contains City noise level regulations. The City has adopted a number of policies that are directed at controlling or mitigating environmental noise effects. The City's Noise Ordinance (*Municipal Code* Chapter 8.54, *Noise Control*) controlled hours of operation for multiple sources of excessive noise. Excessive noise is not permitted between the hours of 8:00 PM and 8:00 AM in residential zones, and between 8:00 PM and 7:00 AM in all other zones. Unreasonably loud noise is determined by multiple factors including, but not limited to: level of noise; level of background noise; proximity to sensitive receptors; zoning of the noise source area; density of inhabitation of the noise source area; time of day or night the noise occurs; duration; whether the noise is recurrent, intermittent, or constant; and whether the noise is produced by a commercial or noncommercial activity.

The City of San Bernardino prohibits construction activities between the hours of 8:00 PM and 7:00 AM. Construction activities necessary for the immediate preservation of life or property, related to facilities of park and recreation departments, public work projects, or essential public services and facilities are exempt from the provisions of the Noise Ordinance. Also, construction performed pursuant to a valid written agreement with the City, which provides for noise mitigation measures, are also exempt from the Noise Ordinance. However, the City does not have a significance threshold to assess noise impacts during construction for CEQA determinations of noise impacts. Construction noise is a short-term temporary event, occurs mostly during daytime hours (such as 6:00 AM to 3:00 PM), and is considered a common necessity for new development.

5.6.2 ENVIRONMENTAL SETTING

STANDARD UNIT OF MEASUREMENT

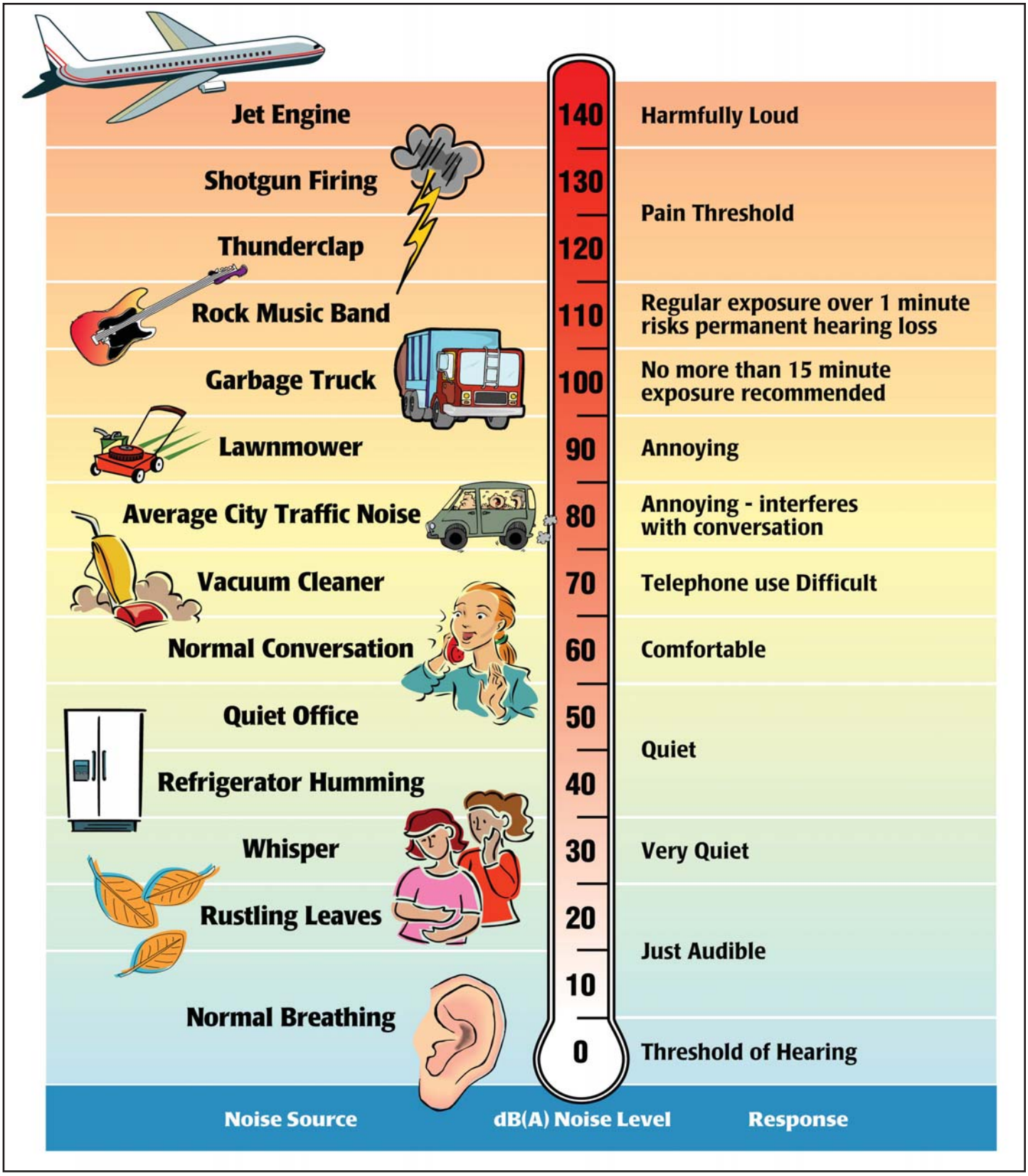
Sound is described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by differentiating among frequencies in a manner approximating the sensitivity of the human ear.

The perceived loudness of sound is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and should be approximated by the A-waited sound levels (expressed as dBA) and the way the human ear perceives noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment.

Community noise is commonly described in terms of the “ambient” nose level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (Leq), which corresponds to a steady-state A-weighted sound level containing the same total energy as a time-varying signal over a given time period (usually one hour). The Leq is the foundation of the composite noise descriptor, Ldn, and shows very good correlation with community response to noise.

Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound ten dBA higher than another is perceived to be twice as loud and 20 dBA higher is perceived to be four times as loud, and so forth. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud).

Examples of various sound levels in different environments are illustrated on *Exhibit 5.6-1*, *Sound Levels and Human Response*.



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ENVIRONMENTAL IMPACT REPORT
SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS

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Sound Levels and Human Response

Exhibit 5.6-1

Various methods have been developed for evaluating community noise to account for, among other things:

- The variation of noise levels over time;
- The influence of periodic individual loud events; and
- The community response to changes in the community noise environment.

Table 5.6-2, *Noise Descriptors*, lists various methods to measure sound over a period of time.

Table 5.6-2
Noise Descriptors

Term	Definition
Decibel (dB)	The unit for measuring the volume of sound equal to 10 times the logarithm (base 10) of the ratio of the pressure of a measured sound to a reference pressure (20 micropascals).
A-Weighted Decibel (dBA)	A sound measurement scale that adjusts the pressure of individual frequencies according to human sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear is between 2,000 and 4,000 cycles per second (hertz).
Equivalent Sound Level (L_{eq})	The sound level containing the same total energy as a time varying signal over a given time period. The L_{eq} is the value that expresses the time averaged total energy of a fluctuating sound level.
Maximum Sound Level (L_{max})	The highest individual sound level (dBA) occurring over a given time period.
Minimum Sound Level (L_{min})	The lowest individual sound level (dBA) occurring over a given time period.
Community Noise Equivalent Level (CNEL)	A rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. These adjustments are +5 dBA for the evening, 7:00 PM to 10:00 PM, and +10 dBA for the night, 10:00 PM to 7:00 AM
Day/Night Average (L_{dn})	The L_{dn} is a measure of the 24-hour average noise level at a given location. It was adopted by the U.S. Environmental Protection Agency (EPA) for developing criteria for the evaluation of community noise exposure. It is based on a measure of the average noise level over a given time period called the L_{eq}. The L_{dn} is calculated by averaging the L_{eq}'s for each hour of the day at a given location after penalizing the "sleeping hours" (defined as 10:00 PM to 7:00 AM), by 10 dBA to account for the increased sensitivity of people to noises that occur at night.
L_{01}, L_{10}, L_{50}, L_{90}	The fast A-weighted noise levels equaled or exceeded by a fluctuating sound level for 1 percent, 10 percent, 50 percent, and 90 percent of a stated time period.
Source: Cyril M. Harris, *Handbook of Noise Control*, 1979.	

HEALTH EFFECTS OF NOISE

Human response to sound is highly individualized. Annoyance is the most common issue regarding community noise. The percentage of people claiming to be annoyed by noise generally increases with the environmental sound level. However, many factors also influence people's response to noise. The factors can include the noise character, variability of the sound level, presence of tones or impulses, and time of day of the occurrence. Additionally, non-acoustical factors, such as a person's opinion of the noise source, ability to adapt to the noise, attitude towards the source and those associated with it, and predictability of the noise, all influence a person's response. As such, response to noise varies widely from one person to another and with any particular noise, individual responses range from "not annoyed" to "highly annoyed."

The effects of noise are often only transitory, but adverse effects can be cumulative with prolonged or repeated exposure. The effects of noise on the community can be organized into six broad categories:

- Noise-induced hearing loss;
- Interference with communication;
- Effects of noise on sleep;
- Effects on performance and behavior;
- Extra-auditory health effects; and
- Annoyance.

Although it often causes discomfort and sometimes pain, noise-induced hearing loss usually takes years to develop. Noise-induced hearing loss can impair the quality of life through a reduction in the ability to hear important sounds and to communicate with family and friends. Hearing loss is one of the most obvious and easily quantified effects of excessive exposure to noise. While the loss may be temporary at first, it could become permanent after continued exposure. When combined with hearing loss associated with aging, the amount of hearing loss directly caused by the environment is difficult to quantify. Although the major cause of noise-induced hearing loss is occupational, substantial damage can be caused by non-occupational sources.

According to the United States Public Health Service, nearly ten million of the estimated 21 million Americans with hearing impairments owe their losses to noise exposure. Noise can mask important sounds and disrupt communication between individuals in a variety of settings. This process can cause anything from a slight irritation to a serious safety hazard, depending on the circumstance. Noise can disrupt face-to-face communication and telephone communication, and the enjoyment of music and television in the home. It can also disrupt effective communication between teachers and pupils in schools, and can cause fatigue and vocal strain in those who need to communicate in spite of the noise.

Interference with communication has proved to be one of the most important components of noise-related annoyance. Noise-induced sleep interference is one of the critical components of community annoyance. Sound level, frequency distribution, duration, repetition, and variability can make it difficult to fall asleep and may cause momentary shifts in the natural sleep pattern, or level of sleep. It can produce short-term adverse effects on mood changes and job performance, with the possibility of more serious effects on health if it continues over long periods. Noise can cause adverse effects on task performance and behavior at work, and non-occupational and social settings. These effects are the subject of some controversy, since the presence and degree of effects depends on a variety of intervening variables. Most research in this area has focused mainly on occupational settings, where noise levels must be sufficiently high, and the task sufficiently complex for effects on performance to occur.

Recent research indicates that more moderate noise levels can produce disruptive after-effects, commonly manifested as a reduced tolerance for frustration, increased anxiety, and decreased incidence of “helping” behavior and increased incidence of “hostile” behavior. Noise has been implicated in the development or exacerbation of a variety of health problems, ranging from hypertension to psychosis. As with other categories, quantifying these effects is difficult due to the amount of variables that need to be considered in each situation. As a biological stressor, noise can influence the entire physiological system. Most effects seem to be transitory, but with continued exposure some effects have been shown to be chronic in laboratory animals.

Annoyance can be viewed as the expression of negative feelings resulting from interference with activities, as well as the disruption of one’s peace of mind and the enjoyment of one’s environment. Field evaluations of community annoyance are useful for predicting the consequences of planned actions involving highways, airports, road traffic, railroads, or other noise sources. The consequences of noise-induced annoyance are privately held dissatisfaction, publicly expressed complaints to authorities, and potential adverse health effects, as discussed above. In a study conducted by the United States Department of Transportation, the effects of annoyance to the community were quantified. In areas where noise levels were consistently above 60 dBA CNEL, approximately nine percent of the community was highly annoyed. When levels exceeded 65 dBA CNEL, the percentage rose to 15 percent. Although evidence for the various effects of noise has differing levels of certainty, it is evident that noise can affect human health. Most of the effects are, to a varying degree, stress related.

GROUND-BORNE VIBRATION

Vibration is an oscillatory motion throughout a solid medium in which the motion’s amplitude can be described in terms of displacement, velocity, or acceleration. The peak particle velocity (PPV) or the root mean square (RMS) velocity is usually used to describe vibration amplitudes. PPV is defined as the maximum instantaneous peak or vibration signal, while RMS is defined as the square root of the average of the squared amplitude of the signal. PPV is typically used for evaluating potential building damage, whereas RMS is typically more suitable for evaluating human response. Typically, ground-borne vibration, generated by manmade activities, attenuates rapidly with distance from the source of vibration. Man-made vibration issues are therefore usually confined to short distances (i.e., 500 feet or less) from the source.

Both construction and operation of development projects can generate ground-borne vibration. In general, demolition of structures preceding construction generates the highest vibrations. Construction equipment such as vibratory compactors or rollers, pile drivers, and pavement breakers can generate perceptible vibration during construction activities. Heavy trucks can also generate ground-borne vibrations that vary depending on vehicle type, weight, and pavement conditions.

NOISE SENSITIVE RECEPTORS

Human response to noise varies widely depending on the type of noise, time of day, and sensitivity of the receptor. The effects of noise on humans can range from temporary or permanent hearing loss to mild stress and annoyance due to such things as speech interference and sleep deprivation. Prolonged stress, regardless of the cause, is known to contribute to a variety of health disorders. Noise, or the lack of it, is a factor in the aesthetic perception of some settings, particularly those with religious or cultural significance. Certain land uses are particularly sensitive to noise, including schools, hospitals, rest homes, long-term medical and mental care facilities, and parks and recreation areas. Residential areas are also considered noise sensitive, especially during the nighttime hours. *Table 5.6-3*, *Sensitive Receptors*, indicates some of the sensitive receptors that are located within the City that can be affected by excess noise levels.

Table 5.6-3
Sensitive Receptors

Type	Name	Street
Place of Worship	Templo Baptista	North H Street
	Downtown Apostolic Church	760 West 6th Street
	St Bernardine's Church	531 North F Street
	Anointed Remnant Ministries	570 West 4th Street
	First Church of Christ	736 North E Street
	Ministerio Biblico Verbo Dvn	555 North E Street
	Way World Outreach Ministry	310 West 4th Street
	St John Primitive	323 West 7th Street
	Antioch Christian Center	590 North Sierra Way
	New Miracle Christian Center	157 North E Street
	Igelisa Caminando Con Dios	191 South E Street
	Greater Faith Community Church	West Rialto Avenue
	Calvary Chapel Antorcha	761 West 2nd Street
	Catholic War Veterans	298 South D Street
	Hallelujah Temple	395 South G Street
	New Beginnings Christian Center	455 South G Street
	Victory Outreach	441 South E Street
	Door Christian Fellowship Church	West Cluster Street
	Iglesia Rios Be Agua Viva	1375 South E Street
	Community of Christ	1894 Commercenter West
	The Rock Church and World Outreach Center	2345 South Waterman Avenue

Table 5.6-3 (continued)
Sensitive Receptors

Type	Name	Street
Schools	Juanita B Jones Elementary	700 North F Street
	Genesis 8 Learning Center	661 North Arrowhead Avenue
	Head Start: H Street	342 North H Street
	American Heritage University of Southern California	255 North D Street
	Civic Circle Preschool	265 North D Street
	Rhema College	118 South Arrowhead Avenue
	John Muir Charter School	1824 Commercenter Circle
	Concorde Career College	201 East Airport Drive
	California Baptist College	225 West Hospitality Lane
	University of Phoenix - San Bernardino Learning Center	301 East Vanderbilt Lane
	Azusa Pacific University	685 Carnegie Drive
	Argosy University Inland Empire	636 East Brier Drive
	ITT Technical Institute	670 Carnegie Drive
	La Petite Academy	855 East Hospitality Lane
	Miles of Smiles Education Center	855 East Hospitality Lane
	National University San Bernardino Academic Center	804 East Brier Drive
Hospitals	Kaiser Permanente Med Care	325 West Hospitality Lane
Libraries	San Bernardino Public Library	555 West 6th Street
Parks	Pioneer Park	West 6th Street
	Secombe Lake State Recreation Area	North Sierra Way
	Meadowbrook Park	East 3rd Street
	Municipal Baseball Park	South E Street
Senior Center	San Bernardino Senior Center	600 West 5th Street

Source: Google Earth Maps accessed March 2010.

MOBILE NOISE SOURCES

San Bernardino's noise environment is dominated by vehicular traffic, including vehicular generated noise along Interstate 215 (I-215) and Interstate 10 (I-10) which adjoin the Project Area, as well as major and primary arterials. Primary arterials that serve the Project Area are State Route 66 (SR-66) (5th Street), 2nd Street, Rialto Avenue, Mill Street, G Street, E Street, Arrowhead Avenue, Waterman Avenue, and Tippecanoe Avenue. During peak travel hours, heavy traffic on these roadways cause higher noise levels compared to noise levels during non-peak hours. These roadways have been designed to specifically carry large volumes, although long-established land use patterns have placed residential uses along some portions of these roadways.

Railroad Noise

The Burlington Northern Santa Fe Railroad (BNSF), Union Pacific Railroad (UP), and Metrolink railroads traverse the City, which create additional mobile source noises in the area. The UP line is located along I-10 from Los Angeles to Colton, where it splits into the westward Palmdale line and the Yuma eastward line. The UP line is utilized by both commuter and freight trains.

The BNSF trends east and southward from the City of Los Angeles and traverses the City of San Bernardino (Cajon Line). The San Bernardino Metrolink Line extends from the City of San Bernardino to Los Angeles Union Station. The Inland Empire Orange County Metrolink Line extends from the City of San Bernardino to the City of San Juan Capistrano. Freight and commuter rail traffic passing through the City and can generate substantial noise impacts (i.e., from whistles and horns) to residents located along these railroad corridors.

Aircraft Noise

The San Bernardino International Airport (SBIA) is located in the southeastern portion of the City and is approximately 0.5 miles north of the nearest portion of the Project Area. Aircraft takeoff, flyovers/over flights, and approach/landings contribute to the City's noise environment. Sensitive uses in proximity to the SBIA may experience increased noise exposure from SBIA operations. According to the San Bernardino County Land Use Plan Hazard Overlay map, the Project Area is located outside of the SBIA noise contours.

STATIONARY NOISE SOURCES

Commercial and industrial land uses located near residential areas currently generate occasional noise impacts. The primary noise sources associated with these facilities are caused by delivery trucks, heavy machinery, air compressors, generators, outdoor loudspeakers, and gas venting. Also, fire and police department operations, park facilities, school sites, and residential uses can also contribute to the ambient noise environment. Other significant stationary noise sources in the project area include noise from construction activities, street sweepers, and gas-powered leaf blowers. Ongoing noise from construction activities throughout the City also adds to the City's ambient noise environment. These types of stationary noise sources have the potential to affect noise-sensitive receptors such as residences, schools, and hospitals.

5.6.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of this EIR. The Initial Study Checklist includes questions relating to noise. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Exposure of persons to or generation of noise levels in excess of standards established in the City's General Plan or Development Code, or applicable standards of other agencies.

- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project (refer to Section 8.0, Effects Found Not To Be Significant).

- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (refer to Section 8.0, Effects Found Not To Be Significant).

- For a project located within an airport land use plan or Airport Influence Area, would the project expose people residing or working in the project area to excessive noise levels.

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.6.4 PROJECT IMPACTS AND MITIGATION MEASURES

SHORT-TERM CONSTRUCTION NOISE

◆ **FUTURE DEVELOPMENT AND IMPROVEMENTS ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD CAUSE TEMPORARY CONSTRUCTION RELATED NOISE LEVELS IN EXCESS OF ESTABLISHED STANDARDS.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Construction activities have a short and temporary duration, lasting from a few days to a period of several months. Groundborne noise and other types of construction-related noise impacts would typically occur during the initial site preparation, which can create the highest levels of noise. Generally, site preparation has the shortest duration of all construction phases. Activities that occur during this phase include earthmoving and soils compaction. High groundborne noise levels and other miscellaneous noise levels can occur during this phase by the operation of heavy-duty trucks, backhoes, and other heavy-duty construction equipment.

Noise from construction activities is generated by two primary sources: (1) the transport of workers and equipment to construction sites, and (2) the noise related to active construction equipment. These noise sources can be a nuisance to local residents and businesses or unbearable to sensitive receptors (i.e., residences, hospitals, senior centers, schools, day care facilities, etc.). The Federal Transit Administration (FTA) has compiled data regarding noise generating characteristics of specific types of construction equipment and typical construction activities. These noise levels would decrease rapidly with distance from the construction site at a rate of approximately 6 dBA per doubling of distance.

Future development could generate significant amounts of noise during grading and construction operations. During construction, adjacent sensitive receptors would be exposed to sporadic high noise levels associated with construction activities as a result of power tools, jack-hammers, truck noise, etc. It is anticipated that construction traffic would access the potential construction sites from several major roadways, including SR-66 (5th Street), 2nd Street, Rialto Avenue, Mill Street, G Street, E Street, Arrowhead Avenue, Waterman Avenue, and Tippecanoe Avenue. As stated above, various sensitive receptors exist in these areas.

The development anticipated within the proposed project is consistent with the *General Plan* land use designations. The *General Plan EIR* concluded the following regarding construction noise impacts:

> *Impacts are considered less than significant at the project level through the enforcement of the San Bernardino Municipal Code and in a broader sense through the policies of the General Plan Noise Ordinance.*

As a result, the proposed project was considered in the *General Plan EIR* analysis. Therefore, project implementation would be consistent with the analysis presented in the *General Plan EIR*, and would result in no greater construction noise impacts within the Project Area than previously identified.

Future development within the Project Area would be subject to compliance with *Municipal Code* Section 8.54.020, which prohibits construction activities between the hours of 8:00 PM and 7:00 AM. Construction noise impacts would also be limited by Policy 14.3.1 of the *General Plan*, which limits construction activities adjacent to residential uses. Additionally, implementation of *General Plan* Policy 14.3.2 would require that future construction activities would employ feasible and practical noise-minimizing techniques (e.g., ensuring equipment is properly muffled and in good working condition, shut off equipment when not in use, implement necessary temporary noise attenuation measures, scheduling high noise-producing activities during daytime hours, routing heavily loaded trucks away from sensitive uses, etc.) that would reduce construction noise impacts to adjacent uses.

Implementation of Mitigation Measure NOI-1 would further reduce construction noise associated with future development within the Project Area to less than significant levels. Notwithstanding, due to the conceptual nature of the future development within the Project Area, future proposals could require individual assessments of potential construction-related noise impacts. If necessary, additional mitigation would be recommended on a project-by-project basis to further minimize potential construction noise impacts. With implementation of Mitigation Measure NOI-1 and compliance with the City's Noise Ordinance and *General Plan* Policies, short-term construction noise impacts would be reduced to less than significant levels.

General Plan Goals and Policies:

NOISE ELEMENT

Goal 14.3 **Protect residents from the negative effects of "spill over" or nuisance noise.**

Policy 14.3.1 Require that construction activities adjacent to residential units be limited as necessary to prevent adverse noise impacts.

Policy 14.3.2 Require that construction activities employ feasible and practical techniques that minimize the noise impacts on adjacent uses.

Mitigation Measures:

NOI-1 The following measures shall be implemented when construction is to be conducted within 500 feet of any residential structures or has the potential to disrupt classroom activities or religious functions.

- All construction equipment shall be equipped with mufflers and sound control devices (e.g., intake silencers and noise shrouds) no less effective than those provided on the original equipment and no equipment shall have an unmuffled exhaust.
- The City shall require that the contractor maintain and tune-up all construction equipment to minimize noise emissions.
- Stationary equipment shall be placed so as to maintain the greatest possible distance to the sensitive use structures.
- All equipment servicing shall be performed so as to maintain the greatest possible distance to the sensitive use structures.
- The construction contractor shall provide an on-site name and telephone number of a contact person. In the event that construction noise is intrusive to an educational process, the construction liaison will revise the construction schedule to preserve the learning environment.
- Trucks shall utilize a route that is least disruptive to sensitive receptors, preferably major roadways, during any necessary off-site import/export of fill material during construction.

Level of Significance After Mitigation: Less Than Significant Impact.

GROUNDBOURNE VIBRATION

◆ **CONSTRUCTION-RELATED ACTIVITIES RESULTING FROM IMPLEMENTATION OF THE PROPOSED PROJECT COULD GENERATE OR EXPOSE PERSONS OR STRUCTURES TO EXCESSIVE GROUNDBORNE VIBRATION.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of a construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 25 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. Construction activities that result under the proposed project may have the potential to generate low levels of groundborne vibration. *Table 5.6-4*, *Typical Vibration Levels For Construction Equipment*, identifies various vibration velocity levels for types of construction equipment that would operate within the City during construction.

Table 5.6-4
Typical Vibration Levels For Construction Equipment

Equipment	Approximate ground velocity in decibels at 25 feet (inches/second)	Approximate ground velocity in decibels at 50 feet (inches/second)
Pile Driver (impact)	104	98
Large Bulldozer	87	81
Loaded Trucks	86	80
Jackhammer	79	73
Small Bulldozer	58	52

Notes:
Root mean square amplitude ground velocity in decibels (VdB) referenced to 1 micro-inch/second.
Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines*, May 2006.

Similar to noise, groundborne vibration would attenuate at a rate of approximately 6 VdB per doubling of distance. The groundborne vibration generated during construction activities would primarily impact existing sensitive uses that are located adjacent to or within the vicinity of specific projects. Based upon the information provided in *Table 5.6-4*, vibration levels could reach up to 87 VdB for typical construction activities (and up to 104 VdB if pile driving activities were to occur) at sensitive uses located within 25 feet of construction. For sensitive uses that are located at or within 25 feet of potential project construction sites, sensitive receptors at these locations may experience vibration levels during construction activities that exceed the FTA's vibration impact threshold of 85 VdB for human annoyance. However, pursuant to Mitigation Measure NOI-2, should future construction activities take place within 25 feet of an occupied structure, a project-specific vibration impact analysis shall be conducted, resulting in a less than significant impact. Also, the project would be required to comply with *Municipal Code* Section 15.68.20, which regulates vibration generated by machinery.

Compliance and/or adherence to the City's *Municipal Code* and *General Plan* Goals and Policies, and Mitigation Measure NOI-2 would reduce the generation and/or exposure of persons or structures to excessive groundborne vibration to less than significant levels.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures:

NOI-2 Project applicants shall require by contract specifications that construction staging areas along with the operation of earthmoving equipment within the City would be located as far away from vibration and noise sensitive sites as possible. Should construction activities take place within 25 feet of an occupied structure, a project specific vibration impact analysis shall be conducted. Contract specifications shall be included in the proposed project construction documents, which shall be reviewed by the City prior to issuance of a grading permit.

Level of Significance After Mitigation: Less Than Significant Impact.

LONG-TERM OPERATIONAL IMPACTS

- **FUTURE DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD INCREASE AMBIENT NOISE LEVELS FROM MOBILE AND STATIONARY SOURCES IN EXCESS OF THE ESTABLISHED STANDARDS.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

MOBILE SOURCES

Traffic Noise

The *General Plan EIR* states that the major source of noise in the City is from mobile sources. Traffic noise modeling for the *General Plan EIR* indicated that the greatest traffic noise level increases would occur in areas subject to increased land use intensity or increased connectivity. The *General Plan EIR* determined that the increase in traffic noise under General Plan buildout as compared to existing conditions would be significant. The *General Plan EIR* stated that there are areas of the City where noise levels would exceed the 63 and 65 dBA thresholds for playground/park and residential areas (as defined in the City's Community Noise and Land Use Compatibility matrix). Also, other sensitive land uses (i.e., institutional and recreational uses) could be exposed to traffic noise levels exceeding established thresholds. Therefore, according to the *General Plan EIR*, any siting of sensitive land uses within these contours then represents a potentially significant impact and would require a separate noise study through the development review process to determine the level of required mitigation.

The land uses proposed within the Project Area are consistent with the *General Plan* land use designations. Therefore, the proposed project and anticipated future development were considered in the *General Plan EIR* analysis. For this reason, project implementation would be consistent with the analysis presented in the *General Plan EIR*, and would result in no greater noise impacts from mobile sources in the Project Area than previously identified. The *General Plan EIR* concluded that without mitigation, "Project implementation would result in long-term operational-related noise that would exceed local standards that may have significant noise impacts related to noise sources which include stationary, roadway, railroad, and aircraft." Compliance with Mitigation Measure NOI-3 (*General Plan EIR* Mitigation Measure GP 5.10-1),

along with *General Plan* Policies 2.9.4, 6.4.1, 6.4.8, and 6.5.1 would reduce traffic noise impacts to a less than significant level.

Railroad Noise

The *General Plan EIR* states that train activity is predicted to increase due to the larger volume of freight arriving at southern California seaports and the projected increase in commuter train travel. Increases in railroad operations would further expose noise sensitive uses to excessive noise and vibration. Implementation of *General Plan* Policies 6.7.3 and 14.2.6 would reduce railroad noise impacts by encouraging buffers between residential uses and railway facilities. Also, implementation of Mitigation Measure NOI-3 would require an approved noise analysis for any project that involves a noise sensitive use within the 65 dBA CNEL contour along railroads. Compliance with the City's *General Plan* Policies and implementation of Mitigation Measure NOI-2 would reduce potential railroad noise and vibration impacts to less than significant levels.

STATIONARY SOURCES

Land uses within the Project Area include commercial, industrial, and multi-family residential. Primary noise sources associated with these facilities are due to customer trips, delivery trucks, heavy machinery, air compressors, generators, outdoor loudspeakers, and gas vents.

Residential Uses

Noise that is typical of residential areas includes children playing, pets, amplified music, mechanical equipment, car repair, and home repair. Noise from residential stationary sources would primarily occur during the "daytime" activity hours. Noise impacts to surrounding uses associated with implementation of the proposed project are anticipated to be less than significant.

Industrial/Commercial Uses

The areas of redevelopment potential include approximately 518,916 square feet of industrial uses and 5,681,674 square feet of commercial uses. New industrial uses could increase noise levels in their proximity due to continual presence of heavy trucks, equipment utilized in the manufacturing or machining process, and other on-site vehicle-related noise. Noise generally produced in commercial areas includes slow moving truck deliveries, parking areas, landscape maintenance, etc. These proposed industrial and commercial uses were analyzed under the *General Plan EIR*. Although these industrial land uses may be located adjacent to residential and other noise sensitive uses, *Municipal Code* Section 8.54.030 provides an exemption to the noise regulations for noise generated in commercial or industrial zones. Nonetheless, significant noise impacts could result if these uses emit excessive noise in the vicinity of sensitive receptors. However, noise strategies and actions require the reduction of noise transmission between commercial and residential uses. Implementation of Policies 14.1.4, 14.2.3, and 14.2.19 would prohibit the development of industrial and commercial uses that would expose sensitive receptors to noise levels above 65 dBA, require acoustical analyses when necessary, and require the provision of appropriate mitigation measures. Implementation of *General Plan* Policies would ensure reduction of noise transmission between industrial/commercial uses and sensitive receptors to less than significant levels.

General Plan Goals and Policies:

LAND USE ELEMENT

Goal 2.9 **Protect the airspace of the San Bernardino International Airport and minimize related noise and safety impacts on our citizens and businesses.**

Policy 2.9.4 Limit the development of sensitive land uses (e.g. residential, hospitals, schools) within the 65 decibel (dB) Community Noise Equivalent Level (CNEL) contour, as shown on Figure LU-4.

CIRCULATION ELEMENT

Goal 6.4 **Minimize the impact of roadways on adjacent land uses and ensure compatibility between land uses and highway facilities to the extent possible.**

Policy 6.4.1 Work with Caltrans to ensure that construction of new facilities includes appropriate sound walls or other mitigating noise barriers to reduce noise impacts on adjacent land uses.

Policy 6.4.8 Develop appropriate protection measures along routes frequently used by trucks to minimize noise impacts to sensitive land uses including but not limited to residences, hospitals, schools, parks, daycare facilities, libraries, and similar uses.

Policy 6.5.1 Provide designated truck routes for use by commercial/industrial trucking that minimize impacts on local traffic and neighborhoods.

Policy 6.7.3 Encourage the provision of a buffer between residential land uses and railway facilities and encourage the construction of sound walls or other mitigating noise barriers between railway facilities and adjacent land uses.

NOISE ELEMENT

Goal 14.3 **Protect residents from the negative effects of "spill over" or nuisance noise.**

Policy 14.1.1 Minimize, reduce, or prohibit, as may be required, the new development of housing, health care facilities, schools, libraries, religious facilities, and other noise sensitive uses in areas where existing or future noise levels exceed an Ldn of 65 dB(A) exterior and an Ldn of 45 dB(A) interior if the noise cannot be reduced to these levels.

Policy 14.1.2 Require that automobile and truck access to commercial properties abutting residential parcels be located at the maximum practical distance from the residential parcel.

Policy 14.1.3 Require that all parking for commercial uses abutting residential areas be enclosed within a structure, buffered by walls, and/or limited hours of operation.

Policy 14.1.4 Prohibit the development of new or expansion of existing industrial, commercial, or other uses that generate noise impacts on housing, schools, health care facilities or other sensitive uses above a Ldn of 65 dB(A).

Policy 14.2.3 Require that development that increases the ambient noise level adjacent to noise-sensitive land uses provide appropriate mitigation measures.

Policy 14.2.6 Buffer residential neighborhoods from noise caused by train operations and increasing high traffic volumes along major arterials and freeways.

Policy 14.2.19 As may be necessary, require acoustical analysis and ensure the provision of effective noise mitigation measures for sensitive land uses, especially residential uses, in areas significantly impacted by noise.

Policy 14.3.5 Require that the hours of truck deliveries to commercial properties abutting residential uses be limited unless there is no feasible alternative or there are overriding transportation benefits by scheduling deliveries at another hour.

Policy 14.3.6 Ensure that buildings are constructed soundly to prevent adverse noise transmission between differing uses located in the same structure and individual residences in multifamily buildings.

Mitigation Measures:

NOI-3 Prior to the issuance of building permits for any project that involves a noise sensitive use within the 65 dBA CNEL contour along major roadways or freeway, railroads, or the San Bernardino International Airport, the project property owner/developers shall submit a final acoustical report prepared to the satisfaction of the Planning Director. The report shall show that the development will be sound-attenuated against present and projected noise levels, including roadway, aircraft, helicopter and railroad, to meet City interior and exterior noise standards.

(Source: General Plan EIR Mitigation Measure GP 5.10-1)

Level of Significance After Mitigation: Less Than Significant Impact.

AIRPORT NOISE IMPACTS

- **AS THE SAN BERNARDINO INTERNATIONAL AIRPORT IS LOCATED WITHIN THE PROJECT VICINITY, FUTURE DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD EXPOSE PEOPLE RESIDING OR WORKING IN THE PROJECT AREA TO EXCESSIVE NOISE LEVELS.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: The existing land uses in the vicinity of the flight path for the SBIA include noise sensitive uses such as parkland and residential uses. However, according to the San Bernardino County Land Use Plan Hazard Overlay map, the Project Area is located outside of the SBIA noise contours. The SBIA is located approximately 0.5 miles from the nearest redevelopment area of the proposed project (Southeast Industrial Park). The Southeast Industrial Park area is currently occupied by manufacturing- and distribution-related warehouse uses, which are not considered to be noise sensitive uses. Similar uses are proposed in the Southeast Industrial Park area under the proposed project. The nearest residential uses under the proposed project would be located approximately 1.2 miles north of the SBIA. To a lesser degree, the City is also exposed to noise emanating from helicopter operations.

Implementation of *General Plan* Policies 2.9.1, 2.9.2, 14.2.17, and 14.2.18 would require all new development to be consistent with the adopted CLUP for the SBIA, limit development of sensitive land uses within the 65 dBA contour, and ensure that new development is compatible with the City's noise compatibility criteria and noise contours. Also, Mitigation Measure 5.6-3 would require an approved noise analysis for any project that involves a noise sensitive use within the 65 dBA CNEL contour of the SBIA, Therefore, with adherence to *General Plan* Policies, implementation of the proposed project would not expose people residing or working in the area to excessive noise levels. Thus, a less than significant impact would occur.

General Plan Goals and Policies:

LAND USE ELEMENT

Goal 2.9 **Protect the airspace of the San Bernardino International Airport and minimize related noise and safety impacts on our citizens and businesses.**

Policy 2.9.1 Require that all new development be consistent with the adopted Comprehensive Land Use Plan for the San Bernardino International Airport and ensure that no structures or activities encroach upon or adversely affect the use of navigable airspace.

Policy 2.9.2 Refer any adoption or amendment of this General Plan, specific plan, zoning ordinance, or building regulation within the planning boundary of the adopted Comprehensive Airport Master Plan for the SBIA to the airport authority as provided by the Airport Land Use Law.

NOISE ELEMENT

Goal 14.2 **Encourage the reduction of noise from transportation-related noise sources such as motor vehicles, aircraft operations, and railroad movements.**

Policy 14.2.17 Ensure that new development is compatible with the noise compatibility criteria and noise contours as defined in the Comprehensive Land Use Plan for the SBIA and depicted in Figure LU-4.

Policy 14.2.18 Limit the development of sensitive land uses located within the 65 decibel (dB) Community Noise Equivalent Level (CNEL) contour, as defined in the Comprehensive Land Use Plan for the SBIA and depicted in Figure LU-4.

Mitigation Measures: Refer to Mitigation Measure NOI-3. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

5.6.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

CUMULATIVE NOISE IMPACTS

- **CUMULATIVE SHORT-TERM AND OPERATIONAL NOISE AS A RESULT OF IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS**.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: The *General Plan EIR* utilized the summary projections method for evaluating cumulative impacts, which addresses the cumulative impacts of development within the City and its Sphere of Influence. The proposed project would be consistent with land use designations of the *General Plan*, and would therefore not result in any impacts not considered in the *General Plan EIR*. Noise level increases would primarily be caused by cumulative increases in traffic, including traffic generated by future development in the Project Area. Noise impacts from cumulative traffic volumes from both local growth, as well as vehicles passing through the Project Area were concluded to be less than significant with implementation of *General Plan* Policies and *General Plan EIR* Mitigation Measures (outlined above). Stationary sources associated with future development could also cause local noise level increases. These two activities together would result in higher noise levels than considered separately; however, the expected combined cumulative effect within the Project Area would be reduced by Mitigation Measures NOI-1 through NOI-3, as well as adherence to the *General Plan* Policies. Therefore, cumulative noise impacts from stationary and mobile noise sources would be considered less than significant.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measures NOI-1 through NOI-3. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant.

5.6.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Noise impacts would be less than significant with compliance with *General Plan* goals and policies, and recommended mitigation measures. Therefore, no significant unavoidable noise impacts would occur as a result of the proposed project.

5.6.7 SOURCES CITED

City of San Bernardino, *City of San Bernardino General Plan*, 2005.

City of San Bernardino, *City of San Bernardino General Plan Environmental Impact Report*, 2005.

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SECTION 5.7
BIOLOGICAL RESOURCES

5.7 BIOLOGICAL RESOURCES

This section describes biological resources within the City of San Bernardino and evaluates potential impacts to biological resources associated with implementation of the proposed project and proposes mitigation measures to reduce those impacts that are determined to be significant. A biological resources constraints analysis was prepared on January 26, 2010 by Tom Dodson & Associates; refer to Appendix D.

5.7.1 REGULATORY SETTING

FEDERAL REGULATIONS

United States Federal Endangered Species Act

The United States Federal Endangered Species Act (FESA) provides legislation to protect Federally-listed plant and animal species. It provides legal protection, requires definition of critical habitat, and development of recovery plans for plant and animal species in danger of extinction. FESA requires all federal agencies to consider listed species in their planning efforts and to take positive actions to further the conservation of these species. Acquisition, development reviews, or the establishment of mitigation and enhancement measures can address threats to critical habitat areas. Section 9 of FESA prohibits any taking of a listed species. The definition of “take” includes to harass, harm, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct. A notable component of this definition is the definition of “harm.” “Harm” in the definition of “take” means an act that actually kills or injures protected wildlife. Such acts may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering (50 CFR 17.3). Sections 7 and 10 of FESA describe agency consultation procedures that allow the USFWS and the National Marine Fisheries Service (NMFS) to approve exceptions to the federal prohibition against take of listed species. If there is a federal nexus (i.e., another federal agency involved with a project), Section 7 of FESA requires federal interagency consultation to minimize impacts to listed species. If no other federal agency is involved, Section 10 of FESA may be used for activities connected to a single project, or for takings as small as a single specimen. Under both Sections 7 and 10, the USFWS and/or the NMFS will evaluate potential effects of the project and require specific protection measures.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (16 U.S.C. Sections 661-667e, March 10, 1994, as amended 1946, 1958, 1978, and 1995) requires that whenever waters or channels of a stream or other body of water are proposed or authorized to be modified by a public or private agency under a Federal license or permit, the Federal agency must first consult with the USFWS and/or National Oceanic and Atmospheric Administration (NOAA) Fisheries and with the head of the agency exercising administration over the wildlife resources of the State where construction will occur (in this case the California Department of Fish and Game [CDFG]), with a view to conservation of birds, fish, mammals, and all other classes of wild animals and all types of aquatic and land vegetation upon which wildlife is dependent.

Clean Water Act Section 404 and 401

The United States Army Corps of Engineers (USACE) and the United States Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into waters of the United States, including wetlands, under Section 404 of the Clean Water Act (CWA) (33 U.S.C. 1344). Waters of the United States are defined in Title 33 CFR Part 328.3(a) and include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. The lateral limits of jurisdiction in those waters may be divided into tidal waters and non-tidal waters, and is determined depending on which type of waters are present (Title 33 CFR Part 328.4(a), (b), (c)). Activities in waters of the United States regulated under Section 404 include fill for development, water resource projects (such as dams and levees), infrastructure developments (such as highways and airports), and mining projects. Section 404 of the CWA requires a Federal license or permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (e.g., certain farming and forestry activities).

Section 401 of the Clean Water Act (33 U.S.C. 1341) requires any applicant for a Federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification from the State in which the discharge originates or would originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the affected waters at the point where the discharge originates or would originate, that the discharge will comply with the applicable effluent limitations and water quality standards. A certification obtained for the construction of any facility must also pertain to the subsequent operation of the facility. The responsibility for the protection of water quality in California rests with the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs).

Rapanos

The June 19, 2006, U.S. Supreme Court decision on the Rapanos v. United States case has further limited the definition of “wetlands” and “waters of the United States” under the CWA. The Rapanos decision was a 4-1-4 decision in which four justices advocated a narrower interpretation of the Clean Water Act to hold that “waters of the United States” excludes intermittent or ephemeral streams and wetlands without a continuous surface connection to navigable waters. The USACE and EPA came out with a memorandum on June 5, 2007, in order to provide guidance in implementing the U.S. Supreme Court’s decision in the consolidated cases Rapanos v. United States and Carabell v. United States (jointly hereafter Rapanos), which addresses the jurisdiction over waters of the United States under the CWA. In accordance with the Rapanos Decision, the agencies will continue to assert jurisdiction over traditional navigable water (TNW) and all wetlands adjacent to TNWs; however, jurisdiction can be asserted over a waters, including wetlands, which are not a TNW by meeting either of the following standards:

- Relatively permanent (i.e., flows year-round, or at least seasonally) nonnavigable tributaries of TNW and wetlands with a continuous surface connection with such tributaries.

- Certain adjacent and non-navigable tributaries that are not relatively permanent. This requires a case-by-case "significant nexus" analysis to determine whether waters and their adjacent wetlands are jurisdictional. A "significant nexus" may be found where waters, including adjacent wetlands, affect chemical, physical, or biological integrity of TNWs.

STATE REGULATIONS

California Endangered Species Act

The State of California enacted similar laws to the FESA, the California Native Plant Protection Act (NPPA) in 1977, and the California Endangered Species Act (CESA) in 1984. The CESA expanded upon the original NPPA and enhanced legal protection for plants, but the NPPA remains part of the California Fish and Game Code. To align with the FESA, the CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals into the CESA as threatened species, but did not do so for rare plants. Thus, these laws provide the legal framework for protection of California-listed rare, threatened, and endangered plant and animal species. The CDFG implements NPPA and CESA, and its Wildlife and Habitat Data Analysis Branch maintains the CNDDB, a computerized inventory of information on the general location and status of California's rarest plants, animals, and natural communities. During the CEQA review process, the CDFG is given the opportunity to comment on the potential of the project to affect listed plants and animals.

The FESA provides legislation to protect Federally-listed plant and animal species. It provides legal protection, requires definition of critical habitat, and development of recovery plans for plant and animal species in danger of extinction. Impacts to listed species resulting from the implementation of a project would require the responsible agency to consult the USFWS. Formal consultations must take place with the USFWS pursuant to Section 10 of the Endangered Species Act, with the USFWS then making a determination as to the extent of impact to a particular species. If the USFWS determines that impacts to a species would likely occur, alternatives and measures to avoid or reduce impacts must be identified.

California Department of Fish and Game Code Section 1600

Streams, lakes, and riparian vegetation as habitat for fish and other wildlife species are subject to jurisdiction by the CDFG under Sections 1600-1616 of the California Fish and Game Code. Any activity that will do one or more of the following generally require a 1602 Lake and Streambed Alteration Agreement: 1) substantially obstruct or divert the natural flow of a river, stream, or lake; 2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or 3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake. The term "stream", which includes creeks and rivers, is defined in the *California Code of Regulations* (*CCR*) as follows: "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (*14 CCR 1.72*). In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife. Riparian is defined as "on, or pertaining to, the banks of a stream;" therefore,

riparian vegetation is defined as "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself." Removal of riparian vegetation requires a Section 1602 Lake and Streambed Alteration Agreement from the CDFG.

California Department of Fish and Game Code Sections 3503 and 3513

According to Section 3503 of the *California Fish and Game Code*, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird (except English sparrows [Passer domesticus] and European starlings [Sturnus vulgaris]). Section 3503.5 specifically protects birds in the orders Falconiformes and Strigiformes (birds-of-prey). Section 3513 essentially overlaps with the Migratory Bird Treaty Act (MBTA), prohibiting the take or possession of any migratory non-game bird. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by the CDFG.

California Native Plant Society

The California Native Plan Society (CNPS) publishes and maintains an Inventory of Rare and Endangered Vascular Plants of California (Inventory) in both hard copy and electronic version. The Inventory assigns plants to the following categories:

- 1A – Presumed extinct in California;
- 1B – Rare, threatened, or endangered in California and elsewhere;
- 2 – Rare, threatened, or endangered in California, but more common elsewhere;
- 3 – Plants for which more information is needed; and
- 4 – Plants of limited distribution.

Additional endangerment codes are assigned to each taxa as follows:

- 1 – Seriously endangered in California (over 80 percent of occurrences threatened/high degree of immediacy of threat);
- 2 – Fairly endangered in California (20-80 percent occurrences threatened); and
- 3 – Not very endangered in California (less than 20 percent of occurrences threatened or no current threats known).

Plants on Lists 1A, 1B, and 2 of the CNPS Inventory consist of plants that may qualify for listing, and are given special consideration under CEQA during project review. Although plants on List 3 and 4 have little or no protection under CEQA, they are usually included in the project review for completeness.

Sensitive Vegetation Communities

Sensitive vegetation communities are natural communities and habitats that are either unique, of relatively limited distribution in the region, or of particularly high wildlife value. These resources have been defined by Federal, State, and local conservation plans, policies, or regulations. The CDFG ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in its CDFG's California Natural Diversity Database (CNDDB). Sensitive vegetation communities are also identified by CDFG on its List of

California Natural Communities Recognized by the CNDDB. Impacts to sensitive natural communities and habitats identified in local or regional plans, policies, and regulations, or by Federal or State agencies, must be considered and evaluated under CEQA (CCR: Title 14, Div. 6, Chap. 3, Appendix G).

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act defines waters of the State as "any surface water or groundwater, including saline waters, within the boundaries of the State." The RWQCB protects all waters in its regulatory scope, but has special responsibility for isolated wetlands and headwaters. These waterbodies have high resource value, are vulnerable to filling, and may not be regulated by other programs, such as Section 404 of the CWA. Waters of the State are regulated by the RWQCB under the State Water Quality Certification Program, which regulates discharges of dredged and fill material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit, or fall under other Federal jurisdiction, and have the potential to impact waters of the State are required to comply with the terms of the Water Quality Certification Program. If a proposed project does not require a Federal license or permit, but does involve activities that may result in a discharge of harmful substances to waters of the State, the RWQCB has the option to regulate such activities under its State authority in the form of Waste Discharge Requirements or Certification of Waste Discharge Requirements.

Fully Protected Species & Species of Special Concern

The classification of "fully protected" was the CDFG's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibian and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The *Fish and Game Code* sections (fish at Section 5515, amphibian and reptiles at Section 5050, birds at Section 3511, and mammals at Section 4700) dealing with "fully protected" species states that these species ". . . may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species," although take may be authorized for necessary scientific research. This language makes the "fully protected" designation the strongest and most restrictive regarding the "take" of these species. In 2003, the code sections dealing with fully protected species were amended to allow the CDFG to authorize take resulting from recovery activities for State-listed species.

Species of special concern are broadly defined as animals not listed under the FESA or CESA, but which are nonetheless of concern to the CDFG because they are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by the CDFG, land managers, consulting biologists, and others, and is intended to focus attention on the species to help avert the need for costly listing under FESA and CESA and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under CEQA during project review.

SAN BERNARDINO MUNICIPAL CODE

City Ordinance MC-1027, 9-8-98 and MC-682, 11-6-89 (Title 15, Chapter 15.34) prohibits the removal and destruction of more than five trees within any 36-month period from a development site or parcel of property without first being issued a permit from the Development Services Department. Per the *Municipal Code*, a permit shall not be required when a lawful order to remove the trees for health and safety purposes has been issued by a local, state, or federal government agency; nor shall a permit be required if a removal is to be accomplished by, or under the auspices of a governmental entity.

SAN BERNARDINO DEVELOPMENT CODE

The City's *Development Code*, Title 19, Land Use/Subdivision Regulations) contains a Hillside Management Overlay District that allows for low-density residential development in the City's hillside areas. Policies of this overlay district regulate protection of the hillside's topographic and natural character, environmental, and aesthetic qualities through requirements to minimize grading and erosion effects, and preservation of slope banks, ridgelines, significant rock outcroppings, natural hydrology, and native plant materials.

5.7.2 ENVIRONMENTAL SETTING

The Project Area is located in the central portion of the City of San Bernardino. The City of San Bernardino is surrounded by the National Forest to the north, the Cities of Highland to east, Redlands to the southeast, Loma Linda to the South, Colton to the southwest, and Rialto to the west. Local climatic conditions in the City are characterized by warm summers, mild winters, infrequent rainfall, limited daytime on shore breezes and comfortable humidity. Temperatures average about 63 degrees Fahrenheit (F). Rainfall averages 15 inches per year, with almost all rain falling between November and April. The Santa Ana River is the primary surface water resource located within the Project Area, adjacent to the Southeast Industrial Park Project Area. The Santa Ana River is the largest stream system in southern California that collects flows from the surrounding mountains and valley washes. The Santa Ana River has high habitat value and is known to support a number of special status species. The wildlife resources in the City are significant due to the large numbers of rare and declining species. Neo-tropical migrant birds depend on deciduous shrubs and trees for foraging during migration. Mature trees provide numerous cavities for cavity-dependent wildlife and the tall trees are used by nestling raptors.

The proposed project includes the consolidation of seven Project Areas into one Project Area. Each Project Area is bordered by and/or contains jurisdictional drainage features. Each Project Area contains unique habitat features and as such, the potential biological resources constraints are discussed below for each of the seven Project Areas.

Central City North

Town Creek (also known as Historic Warm Creek) crosses the northeast corner of Central City North. Surface evidence of this channel is difficult to find and follow in the Central City North Project Area. Within this particular Project Area, Town Creek does not contain habitat suitable of supporting any sensitive species. The remainder of Central City North is devoid of natural, native habitat. No listed species or species of

special concern have the potential to occur in the Central City North Project Area. There is potential habitat however, for perching, roosting, and nesting raptors.

Central City East

Seccombe Lake State Urban Park is located in the northeast quarter of Central City East Project Area. Although, this park is situated in a highly urbanized setting, it contains aquatic habitat and terrestrial habitat capable of supporting a variety of water fowl, songbird, and raptor species. Canada geese are known to utilize the park as a stopover during their migration period. Town Creek crosses the west quarter of Central City East. At the southern corner of this development area, Town Creek is visually apparent. It crosses a maintained grassy area and has the potential to support avifauna and aquatic wildlife. An area of vacant land exists within this Project Area, located north of Seccombe Lake State Urban Park and to the west of the southwest corner of 9th Street and Waterman Avenue. The vacant land is highly disturbed and holds very little habitat value, but it does have marginal potential to support burrowing owl, a State species of concern. The remainder of the Central City East is devoid of natural habitat. No listed species have the potential to occur in the Central City East Project Area.

Meadowbrook/Central City

Town Creek traverses through the Meadowbrook/Central City Project Area from the north to the south. Although, this portion of the channel is surrounded by dense development, it contains aquatic habitat and vegetation capable of supporting a variety of water fowl, songbird, and raptor species. An area of vacant land is located within this Project Area, near the southwest corner of W. Rialto Avenue and N. Sierra Way. It's highly disturbed and holds very little habitat value, but it does have marginal potential to support the burrowing owl. The remainder of the Project Area is devoid of natural habitat. No listed species have the potential to occur in the Meadowbrook/Central City Project Area.

Central City South

There are five (5) jurisdictional channels that are found within or directly adjacent to the Creek Channel, Warm Creek By-Pass, and Urbita Strom Drain. The Town Creek discussion above, applies to Central City South also. Twin Creek, Lytle Creek Channel, Warm Creek By-Pass, and Urbita Storm Drain are all improved channels, yet jurisdictional channels. They hold very little habitat value and do not support any sensitive species. Scattered within the Central City South Project Area, are several parcels of vacant land that may contain suitable habitat for burrowing owl and, to a much lesser degree, may contain suitable habitat for the San Bernardino kangaroo rat.

Tri City

The Warm Creek By-Pass and McGlothlen Storm Drain border Sub Area 1 of the Tri-City Project Area to the north and east respectively. These are improved, yet jurisdictional channels. The primary biological resource issue in this Project Area is the burrowing owl. There are large areas of vacant land in the Tri-City that are already graded or are continually disturbed by routine weed abatement activities. As a result of this

disturbance, the vacant land holds little habitat value. However, regardless of the level of disturbance, the burrowing owls have been observed within and/or adjacent to this Project Area.

The Santa Ana River Channel borders Sub Area II of the Tri-City Project Area to the north; refer to the Southeast Industrial Park. An improved portion of San Timoteo Creek passes through the southwest corner of Sub Area II of the Tri-City Project Area. Although this section of San Timoteo Creek holds minimal habitat value, it is jurisdictional. The remainder of Sub Area II is already developed or graded for developed resulting in no potential habitat for sensitive species. There may be areas however, within Sub Area II where there is potential habitat for perching, roosting, and nesting raptors.

South Valle

San Timoteo Creek borders the South Valle Project Area to the northeast; refer to San Timoteo Creek discussion above. Scattered within the South Valle Project Area, are several parcels of vacant land that may contain suitable habitat for the burrowing owl.

Southeast Industrial Park

The western area of the Southeast Industrial Park Project Area is bisected by the Santa Ana River, and the eastern area is bordered by the Santa Ana River to the north. Soft-bottom sections of Twin Creek and San Timoteo Creek run through the western area and a soft-bottom portion of Mission Channel bisects the eastern section. The area of Twin Creek that occurs in this Project Area is maintained annually for flood control, but holds moderate habitat value for a number of bird species. The section of San Timoteo Creek that occurs in this Project Area often contains elements of riparian and marsh-wetland habitats near its convergence with the Santa Ana River. The portion of Mission Creek that bisects the eastern area contains aquatic, marsh, wetland, and riparian habitat types.

Santa Ana River

Specific habitat types found within the Santa Ana River Floodplain, near the Southeast Industrial Park Project Area, include Riversidean alluvial fan sage scrub (Holland community code 32720), southern cottonwood-willow riparian forest (Holland community code 61330), sandy river wash (Holland community code 11730) and southern willow scrub (Holland community code 63320). There is also aquatic habitat and a few isolated patches of marsh-wetland habitat.

Moderate strands of riparian habitat extend from the I-215 upstream to Mountainview Avenue within the Santa Ana River. The riparian habitat generally consists of open, tall, multilayered, canopy riparian woodland. The characteristic vegetative species within the riparian habitat include: Eucalyptus, Freemont cottonwood (Populus fremontii), black willow (Salix goodingii) narrow-leved willos (S. exigua), arroyo willow (S. lasiolepis), sandbar willow (S. hindsiana), mule fat (Baccharis salicifolia), and sycamore (Platanus recemosa). The canopy structure of the riparian woodland has a complex architecture and its understory consists of varying layers of shrubs, herbs and vines.

Additionally, there is mule fat scrub found in discreate patches along the outer edges of the riparian woodland. The mule fat scrub is dominated by mule fat (Baccharis salicifolia) and typically occurs in areas that experience less frequent scour than the willow riparian woodland. Mule fat scrub often comprises an important subcomponent of the willow riparian woodland through its presence along the upper edge and within openings of the woodland.

There are expansive patches of Riversidean alluvial fan sage scrub (RAFSS) in the Santa Ana River from the I-215 upstream to Mountainview Avenue. RAFSS is a distinct habitat type of the coastal sage scrub community. It is composed of species found in both coastal sage scrub and chaparral communities. This is a relatively open vegetation type adapted to periodic disturbances, such as erosion and flooding. RAFSS is composed of an assortment of drought deciduous shrubs and large evergreen woody shrubs such as Yerba Santa (Eriodictyon trichocalyx), (Artemisia Californica), buckwheat (Eriogonum fasciculatum), golden currant (Ribes aureum), California croton (Croton californica), and white sage (Salvia apiana).

In addition to the fundamental flood control and water supply-related functions of the Santa Ana River, the watercourse serves as a wildlife habitat linkage, buffer and corridor. Habitat linkages provide links between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages, but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet, inadequate for others. Wildlife corridors are significant features for dispersal, seasonal migration, breeding, and foraging. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources. The Santa Ana River buffers the plants and wildlife from surrounding human disturbance. For these and other reasons, the habitat in the Santa Ana River near the Southeast Industrial Park Project Area supports a high level natural resource diversity and richness. Despite its location in the middle of a dense urban area, the Santa Ana River maintains considerable habitat value.

Special Status Species

Fifty-five special status species have been identified within the Redlands and San Bernardino South quadrangles. Of the 55 species, six State and/or federally listed species have been documented within the Santa Ana River in the vicinity of the Project Area, specifically near the Southeast Industrial Park Project Area. These species include the San Bernardino kangaroo rat (SBKR) [Dipodomys mariami parvus], coastal California gnatcatcher (CAGN) [Polioptila californica californica], least Bell's vireo (LBVI) [Vireo bellii pusillus], southwestern willow flycatcher (SWWF) [Empidonax traillii extimus], Santa Ana River woollystar [Eristrum densifolium var santorum], and the slenderhorned spineflower [Dodecahema leptoceras]. Refer to Appendix D for all sensitive species documented to occur or have occurred within the San Bernardino South and Redlands Topographic Quadrangles.

Slender-Horned Spineflower

The slender-horned spineflower is a federally-endangered, small, spreading annual in buckwheat family (Polygonaceae), with stems reaching 3-15 cm across. The size of spineflowers varies, however, depending on annual available moisture. The annual has

a basal rosette of leaves, from which rise dense flowering stalks. Slenderhorned spineflower is distinguished from other spineflowers by the presence of 6 terminal awns and 6 hooked basal awns on each involucre. The involucre in the species is a group of bracts that have been fused together to enclose approximately 3 white to pink flowers within each involucre, blooming April through June.

Within most of the seven Project Areas, slender-horned spineflower is found in sandy soil in association with mature alluvial scrub. The ideal habitat for the species appears to be a terrace or bench that receives overbank deposits every 50 to 100 years. Cryptogamic crusts are frequently present in areas occupies by slender-horned spineflower. The crusts on the soil surface are composed of associations of bryophytes, lichens, algae, and some xerophytic liverworts. Cryptogamic crusts enable soils to retain moisture and may help suppress invasion by non-native plant species.

The flower is endemic to southwestern cismontane California, ranging from central Los Angeles County east to San Bernardino County, and south to southwestern Riverside County in the foothills of the Transverse and Peninsular Ranges, at 200 to 700 meters elevation. Only eight areas are still known to support slender-horned spineflower, including two localities each in Los Angeles County (Bee Canyon and Big Tujunga Wash), and two in San Bernardino County (the Santa Ana River wash and Cajon Wash) (CNDDB 2008). Because slender-horned spineflower is an annual and a spring-bloomer, it is expected to germinate following winter precipitation. Potential dispersal agents include coyotes, deers, rabbits, and rodents. Dispersal may also occur via flood water or wind. It is threatened by urbanization, off-road vehicle use, sand and gravel mining, trampling associated with recreation, flood control measures (i.e., constriction of the floodplain, dams, etc.), and competition from non-native plant species.

Individuals are small, and thus may be difficult to locate. The species is only readily detectable in the spring between April and June when in bloom. Population size varies considerably from year to year depending upon rainfall. Although suitable habitat exists within the Project Area, slender-horned spineflower have not been found in the Santa Ana River between the I-215 and Mountainview Avenue in the last decade.

Santa Ana River Woollystar

The Santa Ana River woollystar is a perennial in the Phlox (Polemoniaceae) plant family. The species is a low shrubby perennial which can grow to one meter (3.3 feet) tall, with gray-green stems and leaves. The species blooms from June to August and produces bright blue flowers up to 1.4 inches long that occur in flower heads with about 20 blossoms each. There are three primary pollinators: giant flower-loving fly, long-tongued digger bee, and hummingbirds. The importance of a particular pollinator type appears to depend on habitat type within the floodplain. The species is associated with early- to moderate- successional alluvial scrub, and thus requires periodic flooding and silting for the creation of new habitats and colonization.

Suitable habitat is comprised of a patchy distribution of gravelly soils, sandy soils, rock mounds and boulder fields. Suitable habitat typically contains low amounts of clay, silt and micro-organic materials. These areas typically maintain a perennial plant cover of less than 50 percent. Associated perennial plants include California buckwheat

(Eriogonum fasciculatum), California croton (Croton californicus), yerba santa (Eriodictyon trichocalyx) and scale-broom (Lepidospartum squamatum).

The Santa Ana River woollystar occurs along the Santa Ana River and Lytle and Cajon Creek flood plains from the base of the San Bernardino Mountains in San Bernardino County southwest along the Santa Ana River through Riverside County into the Santa Ana Canyon of northeastern Orange County from about 150 to 580 meters. It is one of five subspecies of the perennial sub-shrub Eriastrum densifolium. The species is threatened by flooding, floodplain modification for flood control purposes and development; flood control management (clearing for channel maintenance and construction of flood control structures); off-road vehicle activity; grazing (resulting in heavy weed cover); farming; sand and gravel mining; and loss of habitat and competition with aggressive non-native species such as European grasses and Arundo donax.

Santa Ana River woollystar occurs in the Santa Ana River between Tippecanoe Avenue and Mountainview Avenue.

San Bernardino Kangaroo Rat

There are 19 subspecies of Merriam's k-rat (Dipodomys merriami), three of which occur in California, including the SBKR. Of the three California subspecies, SBKR are the smallest and darkest. Of the six primary, recently, occupied locations in the San Bernardino and San Jacinto Valleys, only three sites (Santa Ana River and it's tributaries, Cajon and Lytle creeks, and San Jacinto and Bautista creeks) support robust, sustaining populations of SBKR and large contiguous patches of occupied habitat. SBKR are found primarily on well drained, sandy loam substrates, characteristic of alluvial fan and floodplains, where they are able to dig simple, shallow burrows.

The historic range of the subspecies San Bernardino kangaroo rat lies west of the desert divide of the San Jacinto and San Bernardino mountains and extends from the San Bernardino Valley in San Bernardino County to the Menifee Valley in Riverside County. The subspecies currently occupies seven general locations, including the Santa Ana River, Cajon Creek Wash, City Creek, Lytle Creek Wash, and upper Etiwanda Wash in San Bernardino County, and sites in western Riverside County described below. The USFWS emergency listed the SBKR on January 27, 1998 and subsequently listed them as federally endangered later that same year on September 24, 1998 under the Endangered Species Act of 1973, as amended. The USFWS also designated critical habitat units for the SBKR on April 23, 2002, revised 2008.

The units include reaches of the Santa Ana, Lytle and Cajon creeks, San Jacinto River and Bautista creek, and the Etiwanda alluvial fan. Identified threats to the San Bernardino kangaroo rat include the loss of habitat, habitat fragmentation, urban and industrial development, highway construction, water conservation and flood control projects, gravel and sand mining, grazing, and vandalism. Additional threats to the species likely include farming and discing of habitat for weed abatement, heavy grazing, and off-road vehicles. Although the species is associated with sandy washes and drainages, habitat supporting alluvial fan sage scrub on the benches above creek channels is also important for the species.

A sustaining population of SBKR occurs in the channel and upper benches of the Santa Ana River between Tippecanoe Avenue and Mountainview Avenue.

Southwestern Willow Flycatcher

The southwestern willow flycatcher (SWWF) is a small passerine bird measuring approximately 5.7 inches in length. It has a grayish-green back and wings, whitish throat, a light gray-olive breast, and pale yellowish belly. It has two visible white wing bars and a faint or absent eye ring. The call consists of a repeated "whit" and their song is a sneezy "fitz-bew." The southwestern willow flycatcher is currently one of the four recognized subspecies of the willow flycatcher. The flycatcher is a neotropical migrant that breeds in the southwestern United States from mid-April to early-September. In the fall, it migrates south to its wintering grounds in portions of South America, Central America and Mexico.

A rapid decrease in the numbers of SWWF in California and other southwestern states prompted the USFWS to designate it as a Category 1 candidate species in 1991. One year later in 1992, the California Fish and Game Commission listed the species as endangered, under the California Endangered Species Act (CESA) of 1970. On July 23, 1993 the southwestern willow flycatcher was proposed for listing as endangered by the USFWS and was then listed as Federally endangered on February 27, 1995, under the Endangered Species Act (ESA) of 1973. The USFWS designated critical habitat for the species on July 22, 1997. The habitat includes 18 units with a total of 599 miles of river in California, New Mexico, and Arizona. In California, critical habitat was designated along portions of the Santa Ana River, San Luis Rey River, San Diego River, Santa Margarita River, Tijuana River, and south fork of the Kern River. On May 11, 2001, the critical habitat designation from 1997 was struck down by the U.S. 10th Circuit Court of Appeals who required further economic analysis. A recovery plan was finalized by USFWS in March of 2003. Critical habitat designations for the species were re-proposed and finalized in June 2004.

The SWWF breeds in dense riparian habitats along rivers, streams, and other wetlands. They have been documented to establish territories in elevations ranging from sea level to 8,500 feet. Plant species closely associated with the flycatcher include willows (Salix spp.), box elder (Acer negungo), seepwillow (Baccharis spp.), with an overstory of cottonwood (Populus fremontii) (62 FR 39129). Occupied habitat is generally dominated by shrubs and trees 13 to 23 feet or more in height, which provide dense lower and mid-story vegetation approximately 13 feet aboveground. The dense vegetation is often interspersed with open water, small openings, or sparse vegetation, creating a mosaic that is not uniformly dense.

Although the habitat within the Santa Ana River between the I-215 and Mountainview Avenue is suitable for the species, there is no published documentation of SWWF occurring in the vicinity of the Project Area within the last decade. SWWF are highly sensitive to disturbance and are not expected to occur in the immediate vicinity of the Southeast Industrial Park Project Area portion of the Project. The stream area habitat conditions are indicative of heavy, unauthorized recreational use.

Coastal California Gnatcatcher

The coastal California gnatcatcher (CAGN) is a small blue-gray songbird. It has dark blue-gray feathers on its back and grayish-white feathers on its underside. The wings have a brownish wash to them. Its long tail is mostly black with white outer tail feathers. They have a thin, small bill, and the males have a black cap during the summer which is absent during the winter. The gnatcatcher typically occurs in or near sage scrub habitat, which includes the following plant communities: Diegan coastal sage scrub, maritime succulent scrub, Riversidean sage scrub, Riversidean alluvial fan sage scrub, southern coastal bluff scrub, Venturan coastal sage scrub, and coastal sage-chaparral scrub. CAGN also use chaparral, grassland, and riparian habitats where they occur adjacent to sage scrub. These non-sage scrub habitats are used for dispersal. Gnatcatchers are persistent nest builders and often attempt multiple broods, which is suggestive of a high reproductive potential.

Historically, CAGN occurred from southern Ventura County southward through Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties, and into Baja California, Mexico. The amount of coastal sage scrub available to gnatcatchers has continued to decrease during the period after the listing of the species. It is estimated that up to 90 percent of coastal sage scrub vegetation has been lost as a result of development and land conversion.

The habitat within and adjacent to the Santa Ana River floodplain is suitable for dispersal of juvenile coastal California gnatcatchers, but it is not suitable to support breeding pairs.

Least Bell's Vireo

The least Bell's vireo (LBVI) is a small, olive-gray migratory songbird that nests and forages almost exclusively in riparian woodland habitats. Bell's vireos, as a group, are highly territorial and are almost exclusively insectivorous. Least Bell's vireo nesting habitat typically consists of well developed overstory, understory, and low densities of aquatic and herbaceous cover. The understory frequently contains dense sub-shrub or shrub thickets. These thickets are often dominated by plants such as narrow-leaf willow, mule fat, young individuals of other willow species such as arroyo willow or black willow, and one or more herbaceous species. LBVI generally begin to arrive from their wintering range in southern Baja California and establish breeding territories by mid-March to late-March. A large majority of breeding vireos apparently depart their breeding grounds by the third week of September and only a very few have been found wintering in the United States.

The explanations for the drastic decline of the species are various; however the two prevailing factors are habitat loss and brown-headed cowbird (brood parasitism). The small passerine species constructs open cup nests low in the riparian canopy, which may cause them be more vulnerable to brood parasitism compared to larger passerines that nest higher in the canopy. The loss and degradation of riparian habitats have both occurred due to urban and agricultural development, fire, water diversion and impoundment, channelization, livestock grazing, off-road vehicle use and recreation, replacement of native habitats by introduced plant species, and hydrological changes resulting from these and other land uses. LBVI was first proposed for listing as

endangered by the USFWS on May 3, 1985, and was subsequently listed as federally endangered on May 2, 1986. Critical habitat units were designated by the USFWS on February 2, 1994 and included reaches of ten streams in six counties in southern California and the surrounding approximately 38,000 acres. The critical habitat units exist in the Santa Ynez River, Santa Clara River, Santa Ana River, Santa Margarita River, San Luis Rey River, Sweetwater River, San Diego River, Tijuana River, Coyote Creek, and Jumul-Dulzura Creek.

Although LBVI use a variety of riparian plant species for nesting, it appears that the structure of the vegetation is more important than other factors, such as species composition or the age of the stand. Vireos forage in riparian and adjacent chaparral habitats up to 984 feet from the nest, and use both high and low scrub layers as foraging substrate.

There are numerous records of the LBVI in the Santa Ana River between the Interstate 215 freeway and the Waterman Avenue bridge crossing over the Santa Ana River. When the population in this area is dense and resources limited, LBVI have been located in small habitat patches upstream in the Santa Ana River, on the south side of the channel near the confluence of Mission Creek with the Santa Ana River. Currently, the willow/ cottonwood habitat in the Santa Ana River between the I-215 and Montainview Avenue displays a canopy structure considered suitable for LBVI. As a general rule, suitable vireo habitat is at least 0.5 acres in size with dense clumps of vegetation consisting of two to three story canopy structure. The vegetative cover should be at least 50 percent and may include non-riparian woody vegetation, as long as riparian vegetation is present. The likelihood of LBVI using this area for foraging or nesting is related to the densities found downstream. The preference for the species would be to locate in the dense stands of willow cottonwood habitat, but they will use less dense habitat if there is no room for them elsewhere.

Critical Habitat

Critical habitat is designated by USFWS for some threatened and endangered species. At this time, no critical habitat has been designated for slender-horned spineflower or Santa Ana River woolly-star. No portions of the Project Area is located within designated critical habitat for LBVI, CAGN, SWWF, or SBKR.

The Santa Ana sucker (SASU) [Catostomus santaanae] is a native fish found only in a handful of rivers in Southern California. Their range is extremely restricted; they are native only to the Los Angeles, San Gabriel, Santa Ana, and Santa Clara River systems in southern California. They now only live in the upper portion of the Los Angeles and San Gabriel drainages, and the lower part of the Santa Ana River, downstream of La Cadena Avenue, near the Rialto Drain. Although the species does not occur in the Project Area, it is worth mentioning that critical habitat for the SASU was published January 4, 2005. This rule was litigated and a revised SASU critical habitat designation is mandated to be issued in 2010. According to the USFWS the revised proposal will encompass areas of the Santa Ana River within the Project Area between I-215 and Tippecanoe Avenue.

Jurisdictional Waters

Several jurisdictional channels and drainages are identified in the Project Area. These channels include:

1. Town Creek (improved and natural sections)
2. Warm Creek By-Pass (improved)
3. McGlothlen Storm Drain (improved)
4. Lytle Creek Channel (improved)
5. Urbita Storm Drain (improved)
6. Twin Creek Channel (improved and soft-bottom channelized sections)
7. Santa Ana River (natural)
8. Mission Creek (natural)
9. San Timoteo Creek (improved and soft-bottom sections)

All of these water courses are considered waters of the U.S. and waters of the State, and are subject to the Clean Water Act. The channels as well as Seccombe Lake are also subject to the *California Fish and Game Code*.

5.7.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to biological resources. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, costal, etc.) through direct removal, filling, hydrological interruption, or other means;

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (refer to Section 8.0, Effects Found Not To Be Significant).

Based on these significance standards, the effects of the proposed project have been categorized as either "no impact," a "less than significant impact," or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.7.4 PROJECT IMPACTS AND MITIGATION MEASURES

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD EFFECT SPECIES IDENTIFIED AS A CANDIDATE, SENSITIVE, OR SPECIAL STATUS SPECIES.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: The proposed project, which includes the consolidation of seven Project Areas into one Project Area, is located in the central portion of the City of San Bernardino. The majority of the Project Area includes highly disturbed land with little habitat value for sensitive species. However, potential biological resource constraints have been identified in portions of each of the seven Project Areas. Each Project Area is bordered by and/or contains jurisdictional drainage features and shows some potential for nesting raptors and nesting birds. The Santa Ana River is the primary surface water resource located within the Project Area, adjacent to the Southeast Industrial Park Project Area. The Santa Ana River has high habitat value and is known to support a number of special status species. According to the Biological Resources Constraints Analysis, 55 special status species have been identified within the Redlands and San Bernardino South quadrangles. Of the 55 species, six State and/or federally listed species have been documented within the Santa Ana River in the vicinity of the Project Area, specifically near the Southeast Industrial Park Project Area. These species include the San Bernardino kangaroo rat (SBKR) [Dipodomys mariami parvus], coastal California gnatcatcher (CAGN) [Polioptila californica californica], least Bell's vireo (LBVI) [Vireo bellii pusillus], southwestern willow flycatcher (SWWF) [Empidonax traillii extimus], Santa Ana River woollystar [Eristrum densifolium var santorum], and the slenderhorned spineflower [Dodecahema leptoceras]. The wildlife resources in the City are significant due to the large numbers of rare and declining species. Neo-tropical migrant birds depend on deciduous shrubs and trees for foraging during migration. Mature trees provide numerous cavities for cavity-dependent wildlife and the tall trees are used by nestling raptors. Nesting birds, bird nests, and bird eggs are provided protection under the federal Migratory Bird Treaty Act (MBTA) Sections 703-712, and the California Department of Fish and Game (CDFG) Code Sections 3503, 3503.5, and 3513. To avoid impacts to birds nesting in trees, Mitigation Measure BIO-1 requires that a raptor specialist be retained before construction activities begin to determine if any nests exist or are active, and details actions to ensure nests are not disturbed, thus reducing impacts to a less than significant level.

Future development within the Project Area may warrant habitat evaluations to determine the need for detailed or focused surveys for certain species such as the burrowing owl. Additionally, future development in the Project Area may also require compliance with water quality discharges during development and after development, and if any future development

required modifications to a jurisdictional channel, then regulatory permits would be required. These potential impacts would be mitigated through Mitigation Measures BIO-2 and BIO-3 to a less than significant level.

In addition, the Land Use Element and Natural Resources and Conservation Element of the *General Plan* provide information on natural and biological resources, such as threatened or endangered species. The Land Use Element includes policies to prevent further loss of species such as the Santa Ana River woollystar and Slender-horned spineflower and to develop recommendations for preservation and enhancement of their habitats. The Natural Resources and Conservation Element also includes policies to conserve and enhance San Bernardino's biological resources. With adherence to the *General Plan* goals and policies, and Mitigation Measures BIO-1 and BIO-2, impacts would be reduced to a less than significant level.

Goals and Policies in the General Plan:

LAND USE ELEMENT

Goal 2.6 **Control development and the use of land to minimize adverse impacts on significant natural, historic, cultural, habitat, and hillside resources.**

Policy 2.6.1 Hillside development and development adjacent to natural areas shall be designed and sited to maintain the character of the City's significant open spaces and historic landmarks to preserve natural features and habitat.

Policy 2.6.2 Balance the preservation of plant and wildlife habitats with the need for new development through site plan review and enforcement of the California Environmental Quality Act (CEQA).

Policy 2.6.3 Capitalize on the recreation and environmental resources offered by the Santa Ana River and Cajon Wash by requiring the dedication and development of pedestrian and greenbelt linkages.

NATURAL RESOURCES AND CONSERVATION ELEMENT

Goal 12.1 **Conserve and enhance San Bernardino's biological resources.**

Policy 12.1.1 Acquire and maintain current information regarding the status and location of sensitive biological elements (species and natural communities) within the planning area.

Policy 12.1.2 Site and develop land uses in a manner that is sensitive to the unique characteristics and that minimizes the impacts on sensitive biological resources.

Policy 12.1.3 Require that all proposed land uses in the "Biological Resource Management Areas" (BRM), be subject to review by the Environmental Review Committee (ERC).

Policy 12.1.4 Require that development in the BRM:

a. Submit a report prepared by a qualified professional(s) that addresses the proposed project's impact on sensitive species and habitat, especially those that are identified in State and Federal conservation programs;
b. Identify mitigation measures necessary to eliminate significant adverse impacts to sensitive biological resources;
c. Define a program for monitoring, evaluation the effectiveness of, and ensuring the adequacy of the specified mitigation measures; and
d. Discuss restoration of significant habitats.

Goal 12.2 Protect riparian corridors to provide habitat for fish and wildlife.

Policy 12.2.1 Prohibit development and grading within fifty (50) feet of riparian corridors, as identified by a qualified biologist, unless no feasible alternative exists.

Policy 12.2.2 Generally permit the following uses within riparian corridors:

a. Education and research, excluding buildings and other structures;
b. Passive (non mechanized) recreation;
c. Trails and scenic overlooks on public land(s);
d. Fish and wildlife management activities;
e. Necessary water supply projects;
f. Resource consumptive uses as provided for in the Fish and Game Code and Title 14 of the California Administrative Code;
g. Flood control projects where no other methods are available to protect the public safety; and
h. Bridges when supports are not in significant conflict with corridor resources; and pipelines.

Policy 12.2.3 Pursue voluntary open space or conservation easements to protect sensitive species or their habitats.

Policy 12.2.4 Development adjacent to riparian corridors shall:

a. Minimize removal of vegetation;
b. Minimize erosion, sedimentation, and runoff by appropriate protection or vegetation and landscape;
c. Provide for sufficient passage of native and anadromous fish as specified by the California Department of Fish and Game;
d. Minimize wastewater discharges and entrapment; and
e. Prevent groundwater depletion or substantial interference with surface and subsurface flows; and provide for natural vegetation buffers.

Policy 12.2.5 Permit modification of the boundaries of the designated riparian corridors based on field research and aerial interpretation data as part of biological surveys.

Goal 12.3 Establish open space corridors between and to protected wildlands.

Policy 12.3.1 Identify areas and formulate recommendations for the acquisition of property, including funding, to establish a permanent corridor contiguous to the National Forest via Cable Creek and/or Devil Canyon. The City shall consult with various federal, state and local agencies and City departments prior to the adoption of any open space corridor plan.

Policy 12.3.2 Seek to acquire real property rights of open space corridor parcels identified as being suitable for acquisition.

Policy 12.3.3 Establish the following habitat types as high-priority for acquisition as funds are available:

a. Habitat of endangered species;
b. Alluvial scrub vegetation;
c. Riparian vegetation dominated by willow, alder, sycamore, or native oaks; and
d. Native walnut woodlands.

Policy 12.3.4 Preserve and enhance the natural characteristics of the Santa Ana River, City Creek, and Cajon Creek as habitat areas.

Policy 12.3.5 Delineate the habitats of the Santa Ana River Sucker (Catastomus santaanae) and Pacific Speckled Dace (Rhinichtys osculus spp.); develop recommendations for preservation and enhancement of these habitats; and develop standards for development of adjacent lands.

Policy 12.3.6 Prevent further loss of existing strands of Santa Ana River Woolly-star (Eriastrum densifolium ssp. Sanctorum) and Slender-horned spineflower (Dodecahema leptoceras).

Policy 12.3.7 Require that mineral extraction (sand and gravel) projects submit a survey for rare plants prepared by a qualified botanist which shall be prepared in accordance with the Department of Fish and Game's Guidelines for Assessing the Effects of Proposed Developments on Rare and Endangered Plants and Communities.

Policy 12.3.8 Require that mineral extraction projects mitigate impacts to endangered plants according to the Mitigation Policy and Guidelines Regarding Impacts to Rare, Threatened and Endangered Plants developed by the California Native Plant Society Scientific Advisory Committee.

Policy 12.3.9 Restrict off-road vehicle recreation in sensitive habitat areas of Cajon and Lytle Creeks.

Mitigation Measures:

BIO-1 A qualified biologist shall conduct a pre-construction nesting bird survey no more than three days prior to the commencement of ground-disturbing activities on the site. In the event breeding birds and their active nests are discovered on the project site during construction, impacts to nesting locations shall be minimized by the construction contractor pursuant to the California Fish and Game Code and the Federal Migratory Bird Treaty Act.

Where an active bird nest is located by a qualified biologist, a 300-foot buffer (or 500-foot buffer for raptors and special-status bird species) shall be established around it until the qualified biologist deems the nest inactive and there is no evidence of a second attempt to use the nest. The buffer area shall be delineated with orange construction fencing, and a qualified biologist shall verify the installation. Most birds breed between the months of February and September; therefore, if construction occurs outside of this time frame, there is a lower probability that breeding birds would be impacted by construction-related activities.

BIO-2 A qualified biologist with a CDFG Scientific Collection permit and Memorandum of Understanding shall conduct a series of 30-day preconstruction surveys for the burrowing owl and San Bernardino kangaroo rat. The project applicant shall consult with the CDFG regarding measures for reducing or avoiding impacts to these species. The project applicant shall, if required by the CDFG, prepare a relocation plan, which shall be approved by the CDFG. If the aforementioned species are observed prior to construction, CDFG may require that the species be relocated by a qualified biologist to an approved site with suitable habitat present. Survey and relocation methods shall be approved by the CDFG prior to commencement of grading. Future development shall comply with all applicable requirements of the CDFG.

BIO-3 As applicable, future development shall be subject to the regulations set forth by regulatory agencies as part of the jurisdictional permitting process. The ACOE and CDFG shall require project applicants to explore alternatives to avoid or reduce impacts and shall also require mitigation for all unavoidable impacts. The ACOE has a “no net loss” policy that requires that any unavoidable impacts to stream values and functions be replaced. In addition, the RWQCB shall add restrictions to control runoff from the site, require on the site treatment of runoff to improve water quality, and impose Best Management Practices on the construction. All of the features of the project that shall address water quality issues shall be explained within the Water Quality Management Plan and Stormwater Pollution Prevention Plan.

Level of Significance After Mitigation: Less Than Significant Impact.

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD HAVE AN ADVERSE EFFECT ON RIPARIAN HABITAT OR OTHER SENSITIVE NATURAL COMMUNITIES.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Specific habitat types found within the Santa Ana River Floodplain, near the Southeast Industrial Park Project Area, include Riversidean alluvial fan sage scrub, southern cottonwood-willow riparian forest, sandy river wash, and southern willow scrub. Moderate strands of riparian habitat and expansive patches of Riversidean alluvial fan sage scrub extend from the I-215 upstream to Mountainview Avenue within the Santa Ana River.

In addition to the fundamental flood control and water supply-related functions of the Santa Ana River, the watercourse serves as a wildlife habitat linkage, buffer and corridor. The Santa Ana River buffers the plants and wildlife from surrounding human disturbance. For these and other reasons, the habitat in the Santa Ana River near the Southeast Industrial Park Project Area supports a high level natural resource diversity and richness. Despite its location in the middle of a dense urban area, the Santa Ana River maintains considerable habitat value. At the time individual development applications are submitted, the City will assess development proposals for potential impacts to significant natural resources pursuant to CEQA and associated State and Federal regulations and City ordinances. Future development in areas with riparian habitat shall be evaluated on a project-by-project basis, in accordance with CDFG and USFWS requirements, to ensure impacts to riparian habitats are addressed. Policy 2.6.2 encourages the balance of preservation of plant and wildlife habitats with the need for new development through site plan review and enforcement of CEQA. Compliance with the *General Plan* goals and policies and Mitigation Measure BIO-3 reduce impacts to a less than significant level.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measure BIO-3. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD HAVE AN ADVERSE EFFECT ON FEDERALLY PROTECTED WETLANDS AS DEFINED BY SECTION 404 OF THE CLEAN WATER ACT.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Each Project Area is bordered by and/or contains jurisdictional drainage features and shows some potential for nesting raptors and nesting birds. The Santa Ana River is the primary surface water resource located within the Project Area, adjacent to the Southeast Industrial Park Project Area. The Santa Ana River has high habitat value and is known to support a number of special status species. Several jurisdictional channels and drainages are identified in the Project Area. These channels include:

1. Town Creek (improved and natural sections)
2. Warm Creek By-Pass (improved)

3. McGlothlen Storm Drain (improved)
4. Lytle Creek Channel (improved)
5. Urbita Storm Drain (improved)
6. Twin Creek Channel (improved and soft-bottom channelized sections)
7. Santa Ana River (natural)
8. Mission Creek (natural)
9. San Timoteo Creek (improved and soft-bottom sections)

All of these water courses are considered waters of the U.S. and waters of the State are subject to the Clean Water Act. The channels as well as Secommbe Lake are subject to the California Fish and Game Code. The western area of the Southeast Industrial Park Project Area is bisected by the Santa Ana River, and the eastern portion is bordered by the Santa Ana River to the north. Soft-bottom sections of the Twin Creek and San Timoteo Creek run through the western area and a soft-bottom section of Mission Channel bisects the eastern area. The section of San Timoteo Creek that occurs in the Project Area often contains elements of riparian and/or marsh-wetland habitat near it's confluence with the Santa Ana River. The section of Mission Creek that bisects the eastern area contains aquatic, marsh, wetland, and riparian habitat types. However, no listed federal, state, or local wetlands inventories are present within the Project Area. Implementation of the proposed project would not adversely impact the Santa Ana River. The *General Plan* Natural Resources and Conservation Element includes a policies to preserve and enhance the natural characteristics of the Santa Ana River as well as to delineate the habitats. Compliance with the *General Plan* goals and policies and Mitigation Measure BIO-3 reduce impacts to a less than significant level.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measure BIO-3. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD INTERFERE WITH THE MOVEMENT OF NATIVE RESIDENT OR MIGRATORY FISH, OR WITH WILDLIFE CORRIDORS.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: In addition to the fundamental flood control and water supply-related functions of the Santa Ana River, the watercourse serves as a wildlife habitat linkage, corridor and buffer. The Santa Ana River buffers the plants and wildlife from surrounding human disturbance. The habitat in the Santa Ana River adjacent to the Southeast Industrial Park Project Area supports a high level natural resource diversity and richness. Despite its central location within a dense urban area, the Santa Ana River maintains considerable habitat value.

The SASU is a native fish found only in a handful of rivers in southern California. Their range is extremely restricted. The fish are native only to the Los Angeles, San Gabriel, Santa Ana, and Santa Clara River systems in southern California. Currently, they only live in the upper portion of the Los Angeles and San Gabriel drainages, and the lower portion of the Santa Ana River,

downstream of La Cadena Avenue, near the Rialto Drain. Although the specie does not occur in the Project Area, critical habitat for the SASU was published January 4, 2005. The rule was litigated and a revised SASU critical habitat designation is mandated to be issued in 2010. According to the USFWS, the revised proposal will encompass areas of the Santa Ana River within the Project Area between I-215 and Tippecanoe Avenue. Future development within the Project Area may warrant habitat evaluations to determine the need for detailed or focused surveys for SASU. Additionally, future development in the Project Area would require compliance with water quality discharges during development and after development, and if any future development required modifications to a jurisdictional channel, then regulatory permits would be required. The *General Plan* Natural Resources and Conservation Element includes goals and policies to protect riparian corridors to provide habitat for fish and wildlife. Policy 12.2.1 prohibits development and grading within 50 feet of riparian corridors, as identified by a qualified biologist, unless no feasible alternative exists. Policy 12.2.3 pursues voluntary open space or conservation easements to protect sensitive species or their habitats. Further policies provide regulations and restrictions for development adjacent to riparian corridors. With adherence to the *General Plan* goals and policies, and Mitigation Measure BIO-3, impacts would be reduced to a less than significant level.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measure BIO-3. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

5.7.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS RELATED TO BIOLOGICAL RESOURCES.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Future development in the City of San Bernardino and surrounding cities could result in the loss of biological resources. The City of San Bernardino is an urbanized city surrounded by other urban cities. The proposed project, which includes the consolidation of seven Project Areas into one Project Area, is located in the central portion of the City of San Bernardino. Similarly to the City of San Bernardino, neighboring communities have converted much of their natural occurring habitats to urban land uses, which do not readily support sensitive plant or wildlife species. Given the built out nature of the City of San Bernardino and surrounding cities, and that the future development sites have already been subject to extensive ground disturbance and/or development, implementation of the proposed project would not have a cumulatively significant impact on local or regional biological resources.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measures BIO-1 through BIO-3. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

5.7.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Biological resource impacts associated with implementation of the proposed project would be less than significant with compliance with the *General Plan* goals and policies, and the recommended mitigation measures. Therefore, no significant unavoidable biological resources impacts would occur as a result of the proposed project.

5.7.7 SOURCES CITED

Biological Resources Constraints Analysis for the San Bernardino Redevelopment Project Area Merger – Area A, prepared by Tom Dodson & Associates, dated January 26, 2010.

City of San Bernardino General Plan, Chapter 2, Land Use Element, prepared by The Planning Center, dated November 1, 2005.

City of San Bernardino General Plan, Chapter 12, Natural Resources and Conservation Element, prepared by The Planning Center, dated November 1, 2005.

Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report, prepared by The Planning Center, dated September 30, 2005.

SECTION 5.8
CULTURAL RESOURCES

5.8 CULTURAL RESOURCES

This section describes cultural resources within the City of San Bernardino and evaluates potential impacts to cultural resources associated with the implementation of the proposed project. Cultural resources relate to archaeological remains, historic buildings, traditional customs, tangible artifacts, historical documents, and public records that make San Bernardino unique or significant. Mitigation measures to reduce the significance of impacts are recommended, as necessary. Information in this section is based the *General Plan* Historical and Archaeological Resources Element and research conducted by ECORP Consulting. The research is contained in its entirely in Appendix E.

5.8.1 REGULATORY SETTING

The *California Environmental Quality Act* (*CEQA*) is the state law that applies to a project's impacts on cultural resources. A project is an activity that may cause a direct or indirect physical change in the environment and that is undertaken or funded by a state or local agency, or requires a permit, license, or lease from a state or local agency. *CEQA* requires that impacts to Historical Resources be identified and, if the impacts will be significant, that mitigation measures to reduce the impacts be applied.

A Historical Resource is a resource that:

1) is listed in or has been determined eligible for listing in the California Register of Historical Resources (CRHR) by the State Historical Resources Commission, or has been determined historically significant by the CEQA lead agency because it meets the eligibility criteria for the CRHR,
2) is included in a local register of historical resources, as defined in Public Resources Code 5020.1(k), or
3) has been identified as significant in an historical resources survey, as defined in Public Resources Code 5024.1(g) [*CCR Title 14*, Section 15064.5(a)].

The eligibility criteria for the CRHR are as follows [*CCR Title 14*, Section 4852(b)]:

1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
2) It is associated with the lives of persons important to local, California, or national history.
3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition, the resource should be at least 50 years old and must retain integrity. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association [*CCR Title 14*, Section 4852(c)].

Historical buildings and structures are evaluated using CRHR Criteria 1, 2, and 3. The results of historical research are used to determine if the building or structure is associated with important historical events or persons and architectural analysis is used to assess whether the building or structure embodies distinctive characteristics or possesses high artistic values. Archaeological sites are usually evaluated under Criterion 4, the potential to yield information important in prehistory or history. An archaeological test program may be necessary to determine whether the site has the potential to yield important data. The CEQA lead agency makes the determination of eligibility, usually by certifying the environmental document, if it contains the results of the evaluation.

Impacts to a Historical Resource (as defined by *CEQA*) are significant if the resource is demolished or destroyed or if the characteristics that made the resource eligible are materially impaired [*CCR Title 14*, Section 15064.5(a)].

5.8.2 ENVIRONMENTAL SETTING

PREHISTORIC AND ETHNOGRAPHIC SETTING

The prehistory of the coastal area can be divided into three time periods, the Millingstone Period, the Intermediate Period, and the Late Prehistoric Period (Wallace 1955). The Millingstone Period (about 6500 B.C. to 1000 B.C.) represents a long period of time characterized by smaller, more mobile groups, compared to later time periods. These groups probably had a seasonal round of settlement, which included both inland and coastal residential bases (Mason, Koerper, and Langenwalter 1997). They relied on grass and sage seeds to provide calories and carbohydrates. Although fewer projectile points occur, compared to later periods, faunal data indicate the same animals were hunted in all time periods (Drover, Koerper, and Langenwalter 1983). Inland Millingstone Period sites are characterized by numerous manos, metates, core tools, and hammerstones (Goldberg and Arnold 1988), while shell middens are common along the coast Quartz and rhyolite are more common than chert as the preferred materials for making chipped stone tools (Mason, Koerper, and Langenwalter 1997).

The period from 1000 B.C. to A.D. 650 is known archaeologically as the Intermediate Period. During this period mortars and pestles appear, indicating the beginning of acorn exploitation. Use of the acorn, a storable high calorie food source, probably allowed greater sedentism (living in one place year-round), especially in inland areas. Large projectile points indicate that the bow and arrow, characteristic of the Late Prehistoric Period, had not yet been introduced. Hunting was probably conducted using a spear thrower. Settlement patterns during this period are not well known. The semi-sedentary settlement pattern characteristic of the Late Prehistoric Period may have begun in coastal areas during the Intermediate Period, although lower population densities may have meant less territoriality. In the upper Santa Ana River drainage area, it has been suggested that the Milling Stone Period artifact assemblage (preponderance of manos and metates and core tools and few or no mortars and pestles) continued into the time period designated as Intermediate on the coast (Goldberg and Arnold 1988). This may indicate that intensive acorn use began later in inland areas compared to the coast.

During the Late Prehistoric Period (A.D. 650 to circa 1800) most people lived in villages of up to 200 people located near permanent water sources and a variety of food resources. The village was the center of a territory from which resources were gathered. Work parties left the village

for short periods of time to hunt, fish, and gather plant foods within the territory. While away from the village they established temporary camps and resource processing locations. Archaeologically, such locations are indicated by manos and metates for seed processing, bedrock mortars for acorn processing, and lithic scatters indicating manufacturing or maintenance of stone tools (usually made of chert or other fine-grained lithic material) used in hunting or butchering. Overnight stays in field camps are indicated by fire-affected rock used in hearths. Resources from other territories were probably obtained through exchange. Coastal products, such as dried fish and shellfish, were exchanged for inland products such as acorns (Waugh 1986; Mason, Koerper, and Peterson 2002).

The Native American group that included the San Bernardino area in its territory at the time the Spanish arrived in the area was the Serrano. The Serrano occupied an area in and around the San Bernardino Mountains between approximately 1,500 and 11,000 feet above mean sea level. Their territory extended west along the north side of the San Gabriel Mountains to Soledad Pass (Earle, McKeehan, and Mason 1995), east as far as Twenty-nine Palms (Bean and Smith 1978), and south through Redlands and Yucaipa to the Lakeview Mountains (Cultural Systems Research 2005). The Serrano also lived along the Mojave River in the Mojave Desert, where they were known as Vanyume (Bean and Smith 1978). Serrano is a Takic language. The Takic languages form a group of related languages within the Uto-Aztecan language family (Golla 2007). The Serrano were mainly hunters and gatherers who also occasionally fished. Game animals included mountain sheep, deer, antelope, rabbits, small rodents, and various birds, particularly quail. Vegetable staples consisted of acorns, pinyon nuts, bulbs and tubers, shoots and roots, berries, mesquite, barrel cacti, and juniper seeds (Bean and Smith 1978).

A variety of materials were used for hunting, gathering, and processing food, as well as for shelter, clothing, and luxury items. Shells, wood, bone, stone, plant materials, and animal skins and feathers were used for making baskets, pottery, blankets, mats, nets, bags and pouches, cordage, awls, bows, arrows, drills, stone pipes, musical instruments, and clothing (Bean and Smith 1978).

The Serrano were loosely organized by patrilineal lineages and associated themselves with either the *Tukum* (wildcat) or the *Wahilyam* (coyote) moiety (Bean and Smith 1978). Settlement locations were determined by water availability, and most Serranos lived in small villages near water sources. Serrano villages in the San Bernardino area included *Yucaip'at* in the Yucaipa Valley, *Guaaschaa* near Redlands, and *Topumuna* at the east end of San Timoteo Canyon (Cultural Systems Research 2005).

Partly due to their mountainous inland territory, contact between Serrano and Euro-Americans was minimal prior to the early 1800s. In 1819, the San Bernardino Rancho Asistencia was established near present-day Redlands and was used to help to convert and relocate many Serrano to Mission San Gabriel. However, small groups of Serrano remained in the area northeast of the San Gorgonio Pass and were able to preserve some of their native culture. Today, most Serrano live either on the Morongo or San Manuel reservations (Bean and Smith 1978).

HISTORIC SETTING

The City of San Bernardino is located on a portion of the land known during the Mexican Period as Rancho San Bernardino, a land grant given to Jose del Carmen Lugo, his two brothers (Jose María and Vicente), and Diego Sepulveda (related to the Lugos by marriage) in 1842 by the Mexican governor of Alta California (Aviña 1976:91). In 1851, the Lugos sold a portion of the rancho to Mormon settlers from Salt Lake City who founded the town of San Bernardino. San Bernardino was established by 437 Mormons who arrived in 150 wagons from Salt Lake City in the spring of 1851. The Mormon settlement at San Bernardino served as a way station for Mormon immigrants travelling to Salt Lake City who arrived by ship in San Diego (Belden 1960). Wagon trains regularly carried immigrants and supplies along the Mormon Trail between Salt Lake City and San Bernardino. The Mormons erected Fort San Bernardino, also known as the Mormon Stockade, in 1851 around one of the Lugo's adobe houses (Stoebe 1986). The Fort was located along what is now Arrowhead Avenue from south of Third Street to Fourth Street (Shaw n.d.). The original one mile square town plan was laid out in 1853 and included 72 blocks extending from 1st Street (now Rialto Street) on the south to 10th Street on the north. The north-south streets had names of significance to the Mormons, which were later changed to letters (A through I Streets) (Shaw n.d.). A Street is now Sierra Way. Block 37 was reserved for a park (now Pioneer Park).

San Bernardino County was formed from Los Angeles County in 1853 and San Bernardino became the county seat (Gudde 1969:280). It was incorporated in 1854 (Shaw n.d.). The Mormons were recalled to Salt Lake City in 1857 and most of them left and sold their holdings at a loss. These included approximately 100 farms with vineyards and orchards (Cleland 1941:156). Many of the San Bernardino properties were bought by people from the settlement at El Monte which had been founded by people from Texas (Belden 1960).

After the Mormons left, San Bernardino lost over one-half its population and un-incorporated (Stoebe 1986). Dr. Ben Barton arrived in San Bernardino in 1858 and opened a drug store and doctor's office on the corner of 4th Street and C Street (now Arrowhead Avenue). The post office was located in the drug store and was operated by Barton's brother. Barton was also Superintendent of Schools and hired Mr. and Mrs. Ellison Robbins to teach in the two adobe schools which had been established by the Mormons. In addition to the two schools and drug store, San Bernardino had one hotel, three stores, and about 50 houses, most of which were made of adobe, but there were some wooden houses, built by the Mormons. The businesses were located along C Street between 3rd and 4th Streets and near C Street along 3rd and 4th Streets (Stoebe 1986). Four saloons were located at 3rd and D Streets (Belden 1960). A "red light district" was located on D Street south of 3rd Street A major flood in 1862 washed away much of the topsoil around San Bernardino, reducing the agricultural productivity of the area. Land that had been used for pasture and agriculture east of town was replaced by the wide Santa Ana River wash. The flood also saturated many of the adobe houses in the town, causing them to collapse. After the flood, new houses were built of wood and commercial buildings were brick, rather than adobe (Belden 1960; Stoebe 1986).

San Bernardino re-incorporated as a town in 1868 (California Genealogy 2008). In 1870, there were two hotels and 20 stores in San Bernardino. During the 1870s Dr. J.C. Peacock replaced Dr. Barton as the doctor, druggist, and postmaster in San Bernardino. San Bernardino was the first stop in southern California for immigrants from the East who arrived by wagon train from

Salt Lake City via Cajon Pass. San Bernardino, connected by stage and freight wagons with Los Angeles, became a supply and transportation center (Stoebe 1986).

San Bernardino remained a small rural town until the arrival of two transcontinental railroads resulted in a real estate boom in the 1880s. The Southern Pacific Railroad built its line east from Los Angeles in 1875 (Petty and Mullaly 2002), but did not go through San Bernardino because San Bernardino refused to pay a subsidy to the Southern Pacific. The Southern Pacific instead built through the Slover Mountain Colony (later renamed Colton) which did pay a subsidy of one square mile of land (Dumke 1944:21). The Southern Pacific continued construction from Colton east through Yuma, making a transcontinental connection to an existing railroad in west Texas in 1881 (Dumke 1944:19). Further development of San Bernardino did not take place until the arrival of the California Southern Railroad, a subsidiary of the Atchison, Topeka, and Santa Fe (AT&SF) Railroad, in 1883. The California Southern Railroad built north from National City and San Diego through Riverside, arriving in Colton in 1882 and in San Bernardino in 1883 (Bryant 1974). The California Southern Railroad completed its line to Barstow, where it connected with the transcontinental AT&SF in 1885 (Bryant 1974). The AT&SF completed its line from San Bernardino to Los Angeles in 1887. A rate war between the AT&SF and the Southern Pacific reduced the transcontinental fare to $1.00 in March of 1887 and, as a result, large numbers of immigrants arrived in southern California (Bryant 1974). The resulting real estate boom caused San Bernardino to expand with numerous new tracts and additions and construction of new business buildings downtown. Real estate assessments doubled in San Bernardino between 1885 and 1887 (Dumke 1944:120). San Bernardino was incorporated as a city in 1886 (Stoebe 1986). The 400-room Stewart Hotel was built during the real estate boom. After it was destroyed by fire, it was rebuilt in 1892 on the southeast corner of 3rd and E Streets. A stone court house replaced the previous adobe courthouse at E and Court Streets. The most elaborate opera house in southern California was built in San Bernardino on the east side of D Street between 3rd and 4th Streets in 1883. It seated 900 people and was expanded to seat up to 1400 people in 1912. Social Events and political rallies were held in the Pavilion, built in Pioneer Park (known as Lugo Park at that time) in 1891. The red light district on D Street south of 3rd was home to over 200 prostitutes during the 1890s and continued in operation until World War II. When the U.S. Army threatened to declare San Bernardino off limits to soldiers in 1941, the city closed the brothels (Stoebe 1986).

San Bernardino's Chinatown was located on 3rd Street east of C Street (Arrowhead Avenue). Over 600 Chinese lived in Chinatown in 1900. Most grew vegetables in the area east of Waterman Avenue known as "China Gardens." The Chinese moved out of Chinatown in the 1920s (Stoebe 1986).

The City doubled in population from 1900 to 1910 from 6,150 in 1900 to 12,779 in 1910. City Hall was built on the corner of 3rd and D Streets in 1901 and the public library was at 4th and D. The first high school was at E and 8th. The Harris dry goods store opened in downtown in 1905 and the Ramona Hospital was built on the northeast corner of 4th and Arrowhead in 1908. The Chamber of Commerce, organized in 1910, sponsored the first National Orange Show in 1911. It was held in a tent on the northwest corner of E and 4th Streets. The National Orange Show moved to its permanent home along E Street south of Mill Street in 1922. The Orange Show Exposition Building on the National Orange Show Grounds was constructed during the 1920s.

In 1919, the City purchased the Farmers Exchange Bank building at 426 W. 3rd Street for use as City Hall (Stoebe 1986). San Bernardino had a population of 18,000 in 1920. During the 1920s the City's residential area expanded north to Highland Avenue. The Andreson Building, Harris Company Department Store, the Antlers and California Hotels, the Fox Theatre and the California Theater, and a new courthouse were built during the 1920s. The new courthouse was built in 1927 on the site of Fort San Bernardino on Arrowhead Avenue in 1927. The Pavilion in Pioneer Park was destroyed by fire in 1913 and was replaced by the Municipal Auditorium in 1923. Valley College, one of the first junior colleges in southern California, opened in 1926. By 1930, the population was 50,000 (Stoebe 1986).

Like most southern California communities, San Bernardino suffered economic setbacks during the Great Depression of the 1930s. But, as happened in many areas throughout the country, the local economy was re-energized by the activities at military facilities during World War II. During the early years of the United States' involvement in the war, the San Bernardino area was made headquarters of the Western Defense Command. Its distance from the threat of an aircraft-carrier-based Japanese attack, as well as its position as a hub of the regional highway, railroad, and telephone networks, made it an ideal location. The U.S. Army Base General Depot, unofficially called Camp Ono, was built as a supply base by the Quartermaster Corps near Shandin Hills, northwest of San Bernardino. The U.S. Army Air Depot, which later became Norton Air Force Base, was laid out along the north side of the Santa Ana River between San Bernardino and Redlands (Belden 1963). Following the war, Norton Air Force Base continued to stimulate the economy in the San Bernardino Valley.

During the post-war expansion of the 1950s and 1960s new residential areas and shopping areas were added north and east of downtown (Stoebe 1986). By 1960 San Bernardino had a population of about 100,000 (Belden 1960). The first shopping mall in San Bernardino was the Inland Center, built south of downtown (west of E Street opposite the Orange Show grounds) in the late 1960s. The construction of the mall and local shopping areas suburban residential areas resulted in fewer people shopping downtown. An early city redevelopment project replaced older commercial buildings and former Chinatown buildings along East 3rd Street with newer buildings and Meadowbrook Park. More downtown commercial buildings were replaced by the Central City Mall which opened in 1973 west of E Street between 2nd and 4th Streets. Many of the older commercial buildings east of E Street were abandoned as businesses, including Harris Company, JC Penney, and Montgomery Ward, moved to the mall. The commercial buildings east of E Street were replaced by a new City Hall and convention center. The Municipal Auditorium in Pioneer Park was demolished in 1979. County and state government buildings were built around the 3rd Street and Arrowhead Avenue intersection. Part of the movement of commercial businesses away from downtown included the establishment of "Restaurant Row" along Hospitality Lane south of downtown near Interstate 10 in the 1970s (Stoebe 1986). Residential expansion and construction of shopping centers continued north and east of downtown during the 1970s (Stoebe 1986).

5.8.3 SIGNIFICANCE THRESHOLD CRITERIA

In accordance with *CEQA,* the effects of a project are evaluated to determine if they will result in a significant adverse impact on the environment. An EIR is required to focus on these effects and offer mitigation measures to reduce or avoid any significant impacts that are identified. The

criteria, or standards, used to determine the significance of impacts may vary depending on the nature of the project.

CEQA Guidelines Section 15064.5 includes provisions for significance criteria related to archaeological and historical resources. A significant archaeological or historical resource is defined as one that meets the criteria of the California Register of Historical Resources, is included in a local register of historic resources, or is determined by the lead agency to be historically significant. A significant impact is characterized as a *"substantial adverse change in the significance of a historical resource."*

Public Resource Code Section 5024.1 authorizes the establishment of the California Register. Any identified cultural resources must, therefore, be evaluated against the California Register criteria. In order to be determined eligible for the California Register, a property must be significant at the local, state, or national level under one or more of the following four criteria, modeled after the National Register of Historic Places criteria:

- It is associated with events or patterns of events that have made a significant contribution to the broad patterns of the history and cultural heritage of California and the United States;
- It is associated with the lives of persons important to the nation or to California's past;
- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- It has yielded, or may be likely to yield, information important to the prehistory or history of the state and the nation.

In addition to meeting any one of the above criteria, a significant property must exhibit a measure of integrity. Properties eligible for listing in the California Register must retain enough of their historic character or appearance to be recognizable as historic properties and to convey the reasons for their significance. Integrity is judged in relation to location, design, setting, materials, workmanship, feeling, and association.

Public Resource Code Section 21083.2 governs the treatment of unique archaeological resources, defined as *"an archaeological artifact, object, or site about which it can be clearly demonstrated"* as meeting any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or,
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, appropriate mitigation measures shall be required to preserve the resource in-place, in an undisturbed state. Mitigation measures may include, but are not limited to a) planning construction to avoid the site, b) deeding conservation easements, or c) capping the site prior to construction. If a resource is determined to be a "non-unique archaeological resource" no further consideration of the resource by the lead agency is necessary.

Based on the above considerations, the following evaluation criteria have been established for use in assessing the proposed project's potential impacts on cultural and historic resources. Cultural impacts resulting from the implementation of the proposed project could be considered significant if they cause any of the following results:

- Be developed in a sensitive archaeological area as identified in the City's *General Plan*.
- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of CEQA.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of CEQA.
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- Disturb any human remains, including those interred outside of formal cemeteries.

Based on these significance standards, the effects of the proposed project have been categorized as either "no impact", a "less than significant impact", or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.8.4 PROJECT IMPACTS AND MITIGATION MEASURES

PREHISTORIC ARCHAEOLOGICAL SITES

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN THE DESTRUCTION OR ALTERATION OF PREHISTORIC ARCHAEOLOGICAL SITES.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Distribution of Prehistoric Resources

A records search carried out at the San Bernardino Archaeological Information Center shows that only two prehistoric archaeological sites have been recorded in the seven Project Areas. P36-01419 is a prehistoric archaeological site that was recorded based on the reported collection of artifacts near Urbita Springs in 1939. The site has been destroyed and was located on the edge of the Central City South Project Area. The other prehistoric site is also based on

the reported presence of artifacts in 1938. It has also been destroyed and was located in the South Valle Project Area.

There are two reasons for the dearth of recorded prehistoric resources in the San Bernardino area. Much of San Bernardino developed prior to laws requiring cultural resources investigations be conducted prior to development were passed in 1966 (National Historic Preservation Act) and 1971 (California Environmental Quality Act). Because no archaeological surveys were conducted prior to development, prehistoric archaeological sites, if present, were not identified prior to their destruction by development. In addition, the San Bernardino area is underlain by fluvial sediments from the Santa Ana River, Lytle Creek, Warm Creek, and San Timoteo Wash. Throughout the Holocene sediments were both deposited and eroded during floods in the river and creeks. The present Santa Ana Wash east of San Bernardino was created by massive erosion during the flood of 1862 (Stoebe 1986). Deposition would have buried archaeological sites and erosion would have washed them away. In addition, it is likely that the prehistoric inhabitants of the area knew of the flood danger and only established residential sites on higher ground within the area subject to flooding.

All of the seven Project Areas have a low potential for prehistoric cultural resources as a result of previous development and/or flood episodes.

Impact Conclusion

Although few prehistoric archaeological sites have been recorded in the Project Area, there is a potential for ground disturbing activities to significantly impact CRHR-eligible prehistoric archaeological sites unless they are identified, evaluated, and if eligible, mitigation measures are applied. Through implementation of the *General Plan* goals and policies, and Mitigation Measures CR-1 and CR-2, impacts would be mitigated to a less than significant level.

General Plan Goals and Policies:

Goal 11.1 **Develop a program to protect, preserve, and restore the sites, buildings and districts that have architectural, historical, archaeological, and/or cultural significance.**

Policy 11.1.1 Develop a comprehensive historic preservation plan that includes:

- Adoption of a Preservation Ordinance that authorizes the City to designate resources deemed to be of significance as a City Historical landmark or district.
- Establishment of a Historic Resources Commission that will review and recommend preservation ordinances, design standards, and historical designations of resources.
- Adoption of the Secretary of Interior Standards for Historic Rehabilitation and the standards and guidelines as prescribed by the State Office of Historic Preservation as design standards for alterations to historic resources.

- Establishment of a design review process for potential development projects in or adjacent to Historic Preservation Overlay Zones.

Policy 11.1.2 Maintain and update the Historic Resources Reconnaissance Survey database files of historic, architectural, and cultural resources conducted in 1991, and integrate it into the City's ordinance and environmental review process.

Policy 11.1.3 Consider, within the environmental review process, properties that may have become historically significant since completion of the survey in 1991.

Policy 11.1.4 Compile and maintain an inventory, based on the survey, of the Planning Area's significant historic, architectural, and cultural resources.

Policy 11.1.5 Continue to adopt historic district and overlay zone ordinances as described in the Historic Resources Reconnaissance Survey Report. Consider the designation of Historic Districts and Historic Overlay Zones as described in the Historic Resources Reconnaissance Survey Report.

Policy 11.1.6 Consider the need for a comprehensive survey for Downtown as well as establishing priorities for future intensive-level surveys.

Policy 11.1.7 Require that all City-owned properties containing or adjacent to historic resources be maintained in a manner that is aesthetically and/or functionally compatible with such resources.

Policy 11.1.8 Continue to develop design standards for commercial areas, similar to those in the Main Street Overlay District, which promotes the removal of tacked-on facades and inappropriate signage, the restoration of original facades, and designs that complement the historic pattern.

Policy 11.1.9 Require that an environmental review be conducted on all applications (e.g. grading, building, and demolition) for resources designated or potentially designated as significant in order to ensure that these sites are preserved and protected. (LU-1)

Goal 11.2 Provide incentives that can be used to preserve our historic and cultural resources.

Policy 11.2.1 Encourage owners of historic income-producing properties to use the tax benefits provided by the 1981 Tax Revenue Act or as may be amended.

Policy 11.2.2 Encourage the use of the Historic Building Code in order to provide flexibility in building code requirements for the rehabilitation of historic buildings.

Policy 11.2.3 Provide for the purchase of facade easements from private property owners; allow private nonprofit preservation groups to purchase facade easements. A historic easement would include any easement, restriction, covenant or

condition running with the land designed to preserve or maintain the significant features of such landmarks or buildings.

Policy 11.2.4 Adopt the Mills Act program to allow for a reduction in property taxes for historic properties.

Goal 11.3 Promote community appreciation for our history and cultural resources.

Policy 11.3.1 Promote the formation and maintenance of neighborhood organizations and foster neighborhood conservation programs, giving special attention to transitional areas.

Policy 11.3.2 Develop brochures to accommodate pedestrian and vehicular tours of historic buildings, landmarks, neighborhoods and other points of historical interest in the San Bernardino area.

Policy 11.3.3 Cooperate with local historic preservation organizations doing preservation work and serve as liaison for such groups.

Policy 11.3.4 Encourage the involvement of San Bernardino City Unified School District, private schools, adult education classes, California State University at San Bernardino, the San Bernardino County Museum, San Bernardino Valley College in preservation programs and activities.

Goal 11.4 Protect and enhance our historic and cultural resources.

Policy 11.4.1 Encourage the preservation, maintenance, enhancement, and reuse of existing buildings in redevelopment and commercial areas; the retention and renovation of existing residential buildings; and the relocation of existing residential buildings when retention on-site is deemed not to be feasible.

Policy 11.4.2 Consider creating a program to relocate reusable older buildings from or into redevelopment projects as a means of historic preservation.

Policy 11.4.3 Utilize the Redevelopment Agency as a vehicle for preservation activity. The Agency is currently empowered to acquire, hold, restore, and resell buildings.

Goal 11.5 Protect and enhance our archaeological resources.

Policy 11.5.1 Complete an inventory of areas of archaeological sensitivity in the planning area.

Policy 11.5.2 Develop mitigation measures for projects located in archaeologically sensitive areas to protect such locations, remove artifacts, and retain them for educational display.

Policy 11.5.3 Seek to educate the general public about San Bernardino's archaeological heritage through written brochures, maps, and reference materials.

Mitigation Measures:

CR-1 Complete Archaeological Surveys of Undeveloped Properties. Prior to initiating any ground disturbing activities on undeveloped (not covered by buildings, pavement, or landscaping) properties, parcels, or city streets subject to redevelopment activities, an archaeological records search and a field survey using transects no more than 15 meters apart shall be completed. The results shall be provided to the City Redevelopment Agency in a technical report.

CR-2 Complete Archaeological Test Program and Data Recovery. If a potentially eligible archaeological site is identified as a result of the survey, an archaeological test program shall be completed in order to provide information necessary to evaluate the site for eligibility for the CRHR. The results of the test program and the evaluation shall be provided to the City Redevelopment Agency in a technical report. If evaluated as eligible and the City determines that the site is eligible, an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, shall be completed for the portion of the site that will be impacted, unless project plans can be changed to avoid impacts to the site.

Level of Significance After Mitigation: Less Than Significant Impact.

HISTORIC ARCHAEOLOGICAL SITES

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN THE DESTRUCTION OR ALTERATION OF HISTORIC ARCHAEOLOGICAL SITES.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Distribution of Historic Resources

The original town platted by the Mormons in 1853 extended from 1st Street (now Rialto Avenue) north to 10th Street and from A Street (now Sierra Avenue) west to I Street. The original town falls within the Meadowbrook/Central City, Central City North, and Central City East Project Areas. The southwestern three blocks of the original town are in the northern part of the Central City South Project Area. In the early 1890s, the original town south of 5th Street was densely built with both commercial and residential buildings. The area north of 5th Street was low to medium density residential (many of the lots had no houses). There were also dispersed buildings (probably houses) along E Street, Mill Street, and Inland Center Drive south of the original town in the Central City South Project Area. The other Project Areas were not yet developed in the early 1890s.

The 1898 USGS San Bernardino quad (surveyed 1893-94) and the 1891 Sanborn's Fire Insurance Maps show that the original central core of San Bernardino was located between 2nd and 5th Streets and between C (now Arrowhead Avenue) and G Street. There were buildings on almost every lot on 3rd, Court, and 4th Streets between C and G Streets and along the south side

of 5th Street from D to G Streets. The north-south streets, D, E, and F, had buildings on most lots from 3rd to 5th Street. Occupied lots continued south on E Street almost to 1st Street. Within this densely built area, commercial buildings lined 3rd Street from C to F Streets and half-way to G Street. Commercial buildings were also located on 3rd Street on the first few lots east of C Street, but the rest of the block is labeled "Chinese dwellings" and laundries on the Sanborn's maps. Court Street had commercial buildings in the east half of the block between D and E Streets. The county courthouse was located on the southeast corner of Court and E Streets. Commercial buildings also were present along D Street from 3rd Street north to 4th Street and extending part-way to 5th Street. Between 2nd and 3rd Streets there was a mix of commercial and residential buildings on D Street. E Street had commercial buildings from Court Street south to 3rd Street. There was a mix of commercial and residential buildings on E Street between 2nd and 3rd Streets. Single-family dwellings occupied most of the rest of the lots in the central core. Exceptions were lumber yards located west and southwest of the commercial core and a gas plant on the west side of C Street north of 2nd Street.

The rest of the original town (north of 5th Street between A and I Streets) had dispersed single-family dwellings (ranging from 2 to 7 houses per block) and churches. The Catholic Church had church, convent, and school buildings on the north side of 5th Street between E and F Streets. To the south, there were only three buildings on 1st Street (now Rialto Avenue) between H and I Streets. Beyond the original town to the south there were dispersed buildings (probably houses) along E Street from 1st Street to Mill Street and along Inland Center Drive toward Colton. There were also a few buildings on the north side of Mill Street west of E Street.

The 1906 Sanborn's maps show that the original town was almost entirely built out. Most houses that were present in the central core in the early 1890s had been replaced by commercial buildings. North of 5th Street, most lots now had houses on them. The area south of 2nd Street had commercial and industrial buildings. The only area outside the original town shown on the 1906 Sanborn's maps is located north and south of 5th Street east of Sierra Avenue in the Central City East Project Area. There were subdivisions in this area in 1887 (Cypress Subdivision and Wozencraft Place Subdivision) and another in 1909 (Amended Baldridge Subdivision) (Assessor's Map Books and County Recorders Map Books). The Brown and Waterman Subdivision in 1906 indicates development south of the original town in the Central City South Project Area.

The 1942 U.S. Army Map Service quad shows that development had extended south of the original town to Congress Street between E and I Streets and to Mill Street between E and Arrowhead Avenue in the Central City South Project Area. South of Mill Street there was one large building on the National Orange Show Grounds on the southeast corner of Mill Street E Street. The only other buildings shown on the 1942 map in the Central City South Project Area south of Mill Street were dispersed buildings along E Street and Arrowhead Avenue. The Southeast Industrial Park Project Area (both eastern and western subareas) was almost entirely undeveloped in 1942. The Tri-City Project Area (southern Tri-City subarea) was occupied by the Tri-City Airport and a few buildings along Tippecanoe Avenue. In the South Valle Project Area, there were numerous buildings along Redlands Boulevard, Caroline Street, and the segment of Gardena Street between Redlands Boulevard and Caroline Street. These buildings were single-family residences in a subdivision that was developed in the late 1930s (DataQuick 2009). The rest of the South Valle Project Area remained undeveloped in 1942. The Tri-City Project Area (northern subarea) had no buildings in 1942. The 1954 USGS San Bernardino

South Quad (based on airphotos from 1952) shows few changes compared to the 1942 map. New buildings shown on the 1954 map that were not present earlier were located in the South Valle Project Area on Gardena and Artesia Streets south of Caroline Street. New buildings were also present in the Tri-City Project Area in the triangle formed by Redlands Boulevard, Waterman Avenue, and San Timoteo Wash. These buildings are no longer extant and appear to have been demolished during construction of the Interstate 10 freeway in the 1960s.

The Historic Property Data File for San Bernardino County (HPDF 2009) lists 57 properties that have buildings more than 50 years old or formerly had buildings more than 50 years old in the original town (between Sierra Way and I Street and between Rialto Avenue and 10th Street) and within the Central City North, Meadowbrook/Central City, and Central City East Project Areas. In addition, there are 16 buildings or building sites more than 50 years old outside of the original town and within the Central City South Project Area and three buildings or building sites more than 50 years old outside of the original town and within the Central City East Project Area listed in the HPDF.

A records search carried out at the San Bernardino Archaeological Information Center shows that 20 historic buildings (more than 50 years old) or sites of historic buildings have been recorded in the Central City North Project Area, all of which is within the original town. In the Central City East Project Area, two historic buildings or building sites have been recorded within the original town and one has been recorded east of the original town. One historic building or former historic building has been recorded in the Meadowbrook/Central City Project Area. The National Orange Show Grounds has been recorded in the Central City South Project Area. The route of the San Bernardino-Sonora Road and the site of Fort Benson have been recorded in the South Valle Project Area. No historic buildings have been recorded in the Southeast Industrial Park and Tri-City Project Areas. In addition, 17 “pending” resources from the historic period have been identified within the original town. Pending resources have been identified on historic maps, but have not been verified on the ground.

The records search indicates that 12 historic archaeological sites containing building foundations and/or refuse from the historical period have been recorded in the Central City North Project Area.

One historic archaeological site is recorded in the Meadowbrook/Central City Project Area and six have been recorded in the Central City East Project Area. One of the sites in the Central City East Project Area is the site of San Bernardino Chinatown. The route of the San Bernardino, Arrowhead & Waterman Railroad (also known as the Highlands Motor Line), an interurban line, crosses the Meadowbrook/Central City and Central City East Project Areas.

Two historical archaeological sites, the Riverside Motor Branch of the Southern Pacific Railway, and the AT&SF Railway from San Bernardino to Redlands have been recorded in the Central City South Project Area. The AT&SF Railway also crosses the Southeast Industrial Park (eastern subarea) Project Area.

One historical archaeological site has been recorded in the Southeast Industrial Park Project Area (western subarea). The route of the Gage Canal crosses the South Valle, Tri-City (airport), and Southeast Industrial Park (eastern subarea) Project Areas. The Southern Pacific Railroad crosses the South Valle Project Area.

Three historic archaeological sites have been recorded in the Tri-City (northern subarea) Project Area.

Based on the history of development of San Bernardino, historic maps, and the records search results, historic buildings, and historic archaeological sites that are potentially eligible for the California Register of Historical Resources could be impacted by redevelopment activities in the Central City North, Central City East, and Central City South Project Areas. These Project Areas overlap with the original town plat of San Bernardino (between Sierra Way and I Street and between Rialto Avenue and 10th Street) established by Mormon colonists in 1853 and contain areas that developed adjacent to the original town in the late nineteenth and early twentieth centuries. Most commercial buildings more than 50 years old in downtown San Bernardino have been demolished, except for one block of buildings bounded by 4th Street, D Street, Court Street, and E Street in the Central City North Project Area. There are numerous extant residential buildings more than 50 years old in the Central City North and Central City East Project Areas. Some of the buildings in this block were built between 1910 and 1950 (DataQuick 2009). The South Valle Project Area has houses more than 50 years old (dating to the 1930s and 1940s), which would need to be evaluated to determine if they are eligible. Other than the site of Fort Benson, which dates to the 1850s, potentially eligible historical archaeological sites are not likely in the South Valle Project Area because the area developed after 1920, by which time trash collection and indoor plumbing makes refuse deposits in trash pits and privies on residential properties unlikely. Potentially eligible historic buildings and historic archaeological sites are very unlikely in the Southeast Industrial Park and Tri-City Project Areas, as these areas had little or no development prior to 1952.

Impact Conclusion

Ground disturbing activities could significantly impact CRHR-eligible historic archaeological sites unless they are identified, evaluated, and if eligible, mitigation measures are applied. Significant impacts to CRHR-eligible historic archaeological sites could occur in the Central City North, Central City East, Meadowbrook/Central City, and Central City South Project Areas. Through implementation of the *General Plan* goals and policies, and Mitigation Measures CR-3 and CR-4, impacts would be mitigated to a less than significant level.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures:

CR-3 Carry Out Historical Research And Records Search. Prior to initiating any ground disturbing activities on properties, parcels, or city streets subject to redevelopment activities in the Central City North, Central City East, Meadowbrook/Central City, and Central City South Project Areas, a records search shall be obtained from the San Bernardino Archaeological Information Center and property-specific historical research shall be conducted to determine the potential for subsurface historical archaeological material. The historical research shall include, but not be limited to, use of historical maps, Sanborn's Fire Insurance Maps, and County Assessor's records. The results shall be provided to the Redevelopment Agency of the City of San Bernardino in a technical report.

CR-4 Complete Archaeological Test Program and Data Recovery. If the results of the archaeological research indicate that a potentially eligible historical archaeological site may be present subsurface, an archaeological test program shall be completed in order to provide information necessary to evaluate the site for eligibility for the CRHR. If evaluated as eligible and the City determines that the site is eligible, an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, shall be completed for the portion of the site that will be impacted, unless project plans can be changed to avoid impacts to the site. If an archaeological test program is not feasible because the property is covered by buildings and structures, archaeological monitoring shall be carried out during ground disturbing activities subsequent to building demolition.

Level of Significance After Mitigation: Less Than Significant Impact.

HISTORIC BUILDINGS AND STRUCTURES

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN THE DESTRUCTION OR ALTERATION OF HISTORIC BUILDINGS AND STRUCTURES.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Redevelopment actions that require demolition or alteration of buildings or structures more than 50 years old could result in significant impacts to a Historical Resource. The City completed a Historic Resources Reconnaissance Survey prepared by Architect Milford Wayne Donaldson (Donaldson Survey) in 1991, which identified known historic buildings/ structures and places located within the City. The following is a summary of the results from the 1991 survey:

- 170 Architectural Styles used for the historic resources identified
- 7,703 total resources located within the City of San Bernardino
- 163 Historically Significant Places
- 74 structures located within the Palms Historic District
- 66 structures located within the Shandin Hills Historic District
- 35 structures located within the West 25th Street Historic District; and
- 10 Post World War II Development areas, where construction of structure occurred between 1942 and 1950.

Evaluation of buildings more than 50 years is necessary to determine if they are Historical Resources for which mitigation measures would be necessary. Significant impacts to CRHR-eligible historic buildings or structures could occur in the Central City North, Central City East, Meadowbrook/Central City, Central City South, and South Valle Project Areas. Through implementation of the *General Plan* goals and policies, and Mitigation Measures CR-5 and CR-6, impacts would be mitigated to a less than significant level.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures:

CR-5 Identify Historical Buildings More than 50 Years Old. Prior to demolition or alteration of buildings or structures more than 50 years old in the Central City North, Central City East, Meadowbrook/Central City, Central City South, and South Valle Project Areas, a building inventory shall be completed by an architectural historian to determine which buildings are more than 50 years old. The age of the buildings may be determined through historical research or by assessing architectural characteristics. Once this inventory has been completed, if a significant resource has been identified, the results of the survey shall be provided to the Agency and City Planning Division to be incorporated into the City's Historical Resources Reconnaissance Survey.

CR-6 Evaluate Historical Buildings More than 50 Years Old. Properties that contain buildings or structures more than 50 years old subject to demolition or alteration shall be evaluated for CRHR eligibility by an architectural historian. The evaluation shall be conducted by means of property-specific historical research and assessment of architectural characteristics. The results of the evaluation shall be provided to the Agency and City Planning Division in a technical report and the results shall be incorporated into the City's Historical Resources Reconnaissance Survey. If evaluated as eligible and the City determines that the building or structure is eligible, mitigation measures formulated by the architectural historian to reduce impacts shall be implemented. For buildings to be altered or remodeled, the Secretary of the Interior's Standards for Rehabilitation shall be employed in project design. For buildings and structures to be demolished, Historic American Building Survey/Historic American Engineering Record (HABS/HAER) standards shall be used in documenting the architectural or engineering characteristics of the building or structure.

SUBSURFACE ARCHAEOLOGICAL SITES

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN THE DESTRUCTION OR ALTERATION OF UNIDENTIFIED SUBSURFACE ARCHAELOGICAL SITES.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Buried or otherwise obscured archaeological resources, not identified as a result of Mitigation Measures CR-1 or CR-3, may be present in the Project Area. This impact is considered potentially significant. However, through implementation of the *General Plan* goals and policies and Mitigation Measure CR-7, impacts would be mitigated to a less than significant level.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures:

CR-7 Conduct Construction Monitoring. All ground-disturbing activities that result from redevelopment actions in the Project Area shall be monitored. Archaeological resources discovered during monitoring shall be evaluated to determine if they are eligible for the CRHR. Appropriate mitigation measures (data recovery or preservation) shall be developed and implemented for eligible resources that will be impacted.

Level of Significance After Mitigation: Less Than Significant Impact.

5.8.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS RELATED TO CULTURAL RESOURCES.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: For this topic, the cumulative impacts are analyzed in terms of impacts within the City of San Bernardino. Historians consider the City of San Bernardino, especially areas depicted in *General Plan EIR* Figure 5.4-1, Historical Patterns of Development in San Bernardino 1860-1935, as being historically significant. In addition, archaeologists and ethnologists consider the City of San Bernardino, especially the areas depicted in *General Plan EIR* Figure 5.4-2, Archaeological Sensitivities, as being archeologically sensitive. As discussed in the *General Plan EIR*, adoption of the *General Plan* in itself would not directly affect any historical structures, archaeological, or paleontological resources. However, long-term implementation of the *General Plan* land use policies could allow development and redevelopment to occur in historically sensitive areas, as well as allow grading of sensitive areas. The *General Plan EIR* concluded that with the *General Plan* goals and policies, and mitigation measures, potential impacts to these resources could be mitigated to less than significant levels.

Future development projects in the Project Area or in City of San Bernardino have the potential to disturb or destroy archaeological, paleontological, and/or historic resources. As discussed above, a number of historical buildings and cultural resources have been identified in the Project Area. It is possible that cumulative development could result in the adverse modification or destruction of archaeological, paleontological, and/or historic resources. Potential cultural resource impacts associated with the development of individual projects under the proposed project would be specific to each site. All new developments would be required to comply with existing Federal, State, and local regulations concerning the protection of archaeological, paleontological, and historic resources on a project-by-project basis. Additionally, implementation of the goals and policies and recommended mitigation measures would reduce potential impacts to undocumented archaeological resources, cultural resources, and historical structure/resources to less than significant levels. Thus, implementation of the proposed project would not result in cumulatively considerable cultural resource impacts.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measures CR-1 through CR-7. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

5.8.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Historical and cultural resources impacts associated with implementation of the proposed project would be less than significant with compliance with the *General Plan* goals and policies and the recommended mitigation measures with the possible exception of impacts resulting in demolition of eligible historical buildings. "In some circumstances, documentation of an historical resource, by way of historical narrative, photographs or architectural drawings, as mitigation for the effects of demolition of the resource will not mitigate the effects to a point where clearly no significant effect on the environment would occur" [CCR Title 14, Section 15126.4(b)(2)]. If documentation does not reduce the impacts of demolition of an eligible historical building to less than significant, a significant unavoidable impact would occur at that time and a Statement of Overriding Considerations would be necessary. However, at this time, no significant unavoidable historical or cultural impacts would occur as a result of the proposed project.

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SECTION 5.9
GEOLOGY AND SEISMIC HAZARDS

5.9 GEOLOGY AND SEISMIC HAZARDS

This section evaluates the geologic and seismic conditions within the City of San Bernardino and evaluates the potential for geologic and seismic hazard impacts associated with implementation of the proposed project. Mitigation measures to reduce the significance of impacts are recommended, as necessary. Information in this section is based on the *San Bernardino General Plan* Safety Element and the *San Bernardino Final General Plan Update and Associated Specific Plans Environmental Impact Report*.

5.9.1 REGULATORY SETTING

FEDERAL SOIL PROTECTION ACT

The purpose of the Federal Soil Protection Act is to protect or restore the functions of the soil on a permanent sustainable basis. Protection and restoration activities include prevention of harmful soil changes, rehabilitation of the soil of contaminated sites and of water contaminated by such sites, and precautions against negative soil impacts. If impacts are made on the soil, disruptions of its natural functions and of its function as an archive of natural and cultural history should be avoided, as far as practicable. In addition, the requirements of the Federal Water Pollution Control Act (also referred to as the Clean Water Act [CWA]) through the National Pollution Discharge Elimination System (NPDES) permit provide guidance for protection of geologic and soil resources.

ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. This State law was a direct result of the 1971 San Fernando Earthquake, which was associated with extensive surface fault ruptures that damaged numerous homes, commercial buildings, and other structures. The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards.

The Act requires the State Geologist to establish regulatory zones, known as "Earthquake Fault Zones," around the surface traces of active faults and to issue appropriate maps. Earthquake Fault Zones were called "Special Studies Zones" prior to January 1, 1994. Local agencies must regulate most development projects within these zones. Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults. An evaluation and written report of a specific area must be prepared by a licensed geologist. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (typically 50 feet set backs are required).

Effective June 1, 1998, the Natural Hazards Disclosure Act requires that sellers of real property and their agents provide prospective buyers with a "Natural Hazard Disclosure Statement" when the property that is being sold lies within one or more State-mapped hazard areas, including Earthquake Fault Zones.

SEISMIC HAZARDS MAPPING ACT

The Seismic Hazards Mapping Act (S-H Act) of 1990 provides a statewide seismic hazard mapping and technical advisory program to assist cities and counties in fulfilling their responsibilities for protecting the public health and safety from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and other seismic hazards caused by earthquakes. Mapping and other information generated pursuant to the S-H Act is to be made available to local governments for planning and development purposes. The State requires: (1) local governments to incorporate site-specific geotechnical hazard investigations and associated hazard mitigation, as part of the local construction permit approval process; and (2) the agent for a property seller or the seller if acting without an agent, must disclose to any prospective buyer if the property is located within a Seismic Hazard Zone. The State Geologist is responsible for compiling seismic hazard zone maps. The S-H Act specifies that the lead agency of a project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils.

UNIFORM BUILDING CODE

Development standards require projects to comply with appropriate seismic design criteria in the Uniform Building Code (UBC), adequate drainage facility design, and preconstruction soils and grading studies. Seismic design standards have been established to reduce many of the structural problems occurring because of major earthquakes. In 1998, the UBC was revised as follows.

- Upgrade the level of ground motion used in the seismic design of buildings;
- Add site amplification factors based on local soils conditions; and
- Improve the way ground motion is applied in detailed design.

CALIFORNIA BUILDING CODE

California building standards are published in the California Code of Regulations, Title 24, known as the California Building Code (2007 CBC). The 2007 CBC applies to all applications for residential building permits. The 2007 CBC consists of 11 parts that contain administrative regulations for the California Building Standards Commission and for all State agencies that implement or enforce building standards. Local agencies must ensure that development complies with the guidelines contained in the 2007 CBC. Cities and counties have the ability to adopt additional building standards beyond the 2007 CBC.

CITY OF SAN BERNARDINO

Municipal Code

The “Building Code of the City of San Bernardino” (Building Code) is codified in Title 15, Buildings and Construction, of the City’s *Municipal Code*. The Building Code adopted the 2007 Edition of the California Building Code (California Code of Regulations, Title 24, Part 2) based on the 2006 International Building Code, including Appendix Chapter 1, Administration, and Appendix 1, Patio Covers, 2007 Edition, as published by the International Code Council.

The purpose of the Building Code is to provide minimum standards to safeguard life or limb, health, property and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings and structures within the City of San Bernardino.

San Bernardino General Plan Safety Element

The *General Plan* Safety Element addresses natural and man-made hazards presents in the City of San Bernardino. Potential risks to San Bernardino residents and the local environment associated with identified hazards are considered. This Element specifically addresses the way in which the City will prepare and respond to fire hazards, geologic and seismic hazards, and flood hazards. The Safety Element provides background information related to each issue and identifies hazard locations within the City, risk-reduction strategies, and hazard abatement measures that can ultimately be used by decision-makers in their review of projects. Refer to Section 5.10, Hazards/Risk of Upset of this EIR, for a discussion of hazardous materials/waste.

Emergency Management Plan[1]

The City of San Bernardino Emergency Management Plan details the functional responsibilities and interactions of the federal, state, and local governmental agencies as well as private organizations in the event of natural and human-related disasters. Included within the natural disaster category are geologic hazards, earthquakes, floods, and fires. Potential human-related disasters include nuclear attacks, transportation-related accidents, and hazardous materials incidents. Within the Emergency Management Plan, potential hazards are described, with the possible effects delineated and recommended mitigations are discussed where applicable. Reconstruction, post-disaster aid, and financial assistance are also discussed.

Hazards Mitigation Plan[2]

The Disaster Mitigation Act of 2000 (DMA 2000), Section 322 (a-d), requires that local governments, as a condition of receiving federal disaster mitigation funds, adopt a mitigation plan that describes the process for identifying hazards, vulnerabilities, and risks, identifies and prioritizes mitigation actions, encourages the development of local mitigation, and provides technical support for those efforts. While the City cannot prevent natural disasters from occurring, the City can reduce and eliminate their effects through well organized public education and awareness effort, preparedness, and mitigation set forth in the San Bernardino Hazard Mitigation Plan.

5.9.2 ENVIRONMENTAL SETTING

The City of San Bernardino lies within the Bunker Hill-San Timoteo Basin, which is bound by the active San Andreas Fault zone on the northwest and the active San Jacinto Fault zone on the southwest. The San Andreas Fault impedes movement of groundwater, producing springs and a groundwater level change that marks the fault trace along the northern boundary of the subbasin. The San Jacinto Fault forms a solid barrier to groundwater that raises the water table

[1] City of San Bernardino General Plan, prepared by The Planning Center, dated November 1, 2005.
[2] Ibid.

nearly to the surface below the course of the Santa Ana River. The Bunker Hill-San Timoteo Basin includes the cities of Rialto, Colton, Loma Linda, Redlands, and San Bernardino.[3]

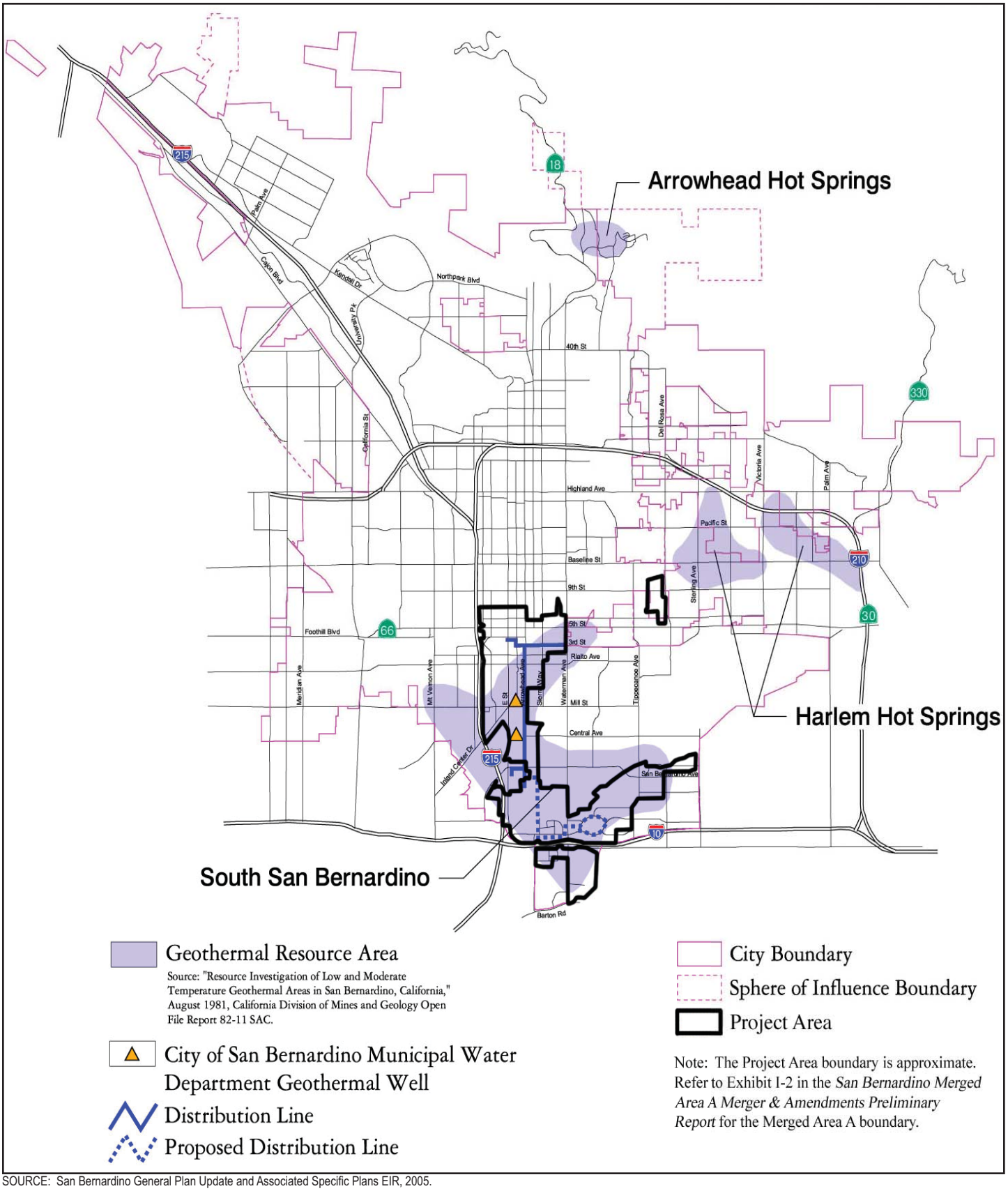
The City of San Bernardino lies on a broad, gently sloping lowland that flanks the southwest margin of the San Bernardino Mountains. The lowland is underlain by alluvial sediments eroded from bedrock in the adjacent mountains and washed by rivers and creeks into the valley region where they have accumulated in layers of gravel, sand, silt, and clay. The sediment accumulation has continued for a few million years, during which time increasing thickness of sediments have gradually buried the original hill and valley topography of the Bunker Hill-San Timoteo Basin. Shandin Hills and other small hills areas in the basin are remnants of the original topography.[4]

GEOTHERMAL ACTIVITY[5]

Geothermal activity is known to occur in the southern portion of the City of San Bernardino and the Arrowhead Springs area; refer to *Exhibit 5.9-1*, *Geothermal Resources*. Geothermal activity occurs within the South Valle, Tri-City, Southeast Industrial Park, Central City South, Meadowbrook/Central City and Central City East Project Areas. The only Project Area that doesn't appear to have geothermal activity is Central City North Project Area. The geothermal springs in the City come from a depth of 15,000 feet due to fractures of the San Andreas Fault zone. The deep subterranean faults and cracks allow rainwater and snowmelt to seep underground where the water is heated by the inner earth and circulates back up to the surface, to appear as hot springs or thermal vents. Geothermal activity is a unique geologic resource inextricably connected to the hydrology and tectonic activity within the basin. Geothermal resources beneath the City are connected to the Bunker Hill-San Timoteo Basin (aquifer). While hot water created from geothermal activity from geothermal activity from the San Andreas Fault is contained in separate perched aquifers above the fresh water aquifer, these two hydrologic resources can affect each other.

According to the San Bernardino Municipal Water Department, there are approximately 90 to 100 geothermal wells and springs currently in operation, which are concentrated in the Central City, Commerce Center, Tri-City areas, and within the vicinity of the former Norton Air Force Base. Currently, the San Bernardino Municipal Water Department maintains two wells in the southern portion of the City for geothermal energy sources. The geothermal springs in the City of San Bernardino are among the hottest in the United States, with highest historic temperatures in the City ranging from 70 degrees Celsius in the southern portions of the City to 140 degrees Celsius in the Arrowhead Springs area in the San Bernardino Mountains. One of the hottest wells in the City was located in the southwestern portion in the old Urbita Springs. The majority of the wells in the City of San Bernardino exhibit well temperatures between 120 and 140 degrees Celsius.

[3] City of San Bernardino Final General Plan Update and Associated Specific Plans EIR, prepared by The Planning Center, dated September 30, 2005.
[4] Ibid.
[5] Ibid.



SOURCE: San Bernardino General Plan Update and Associated Specific Plans EIR, 2005.

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ENVIRONMENTAL IMPACT REPORT
SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS

Geothermal Resources

Exhibit 5.9-1

South San Bernardino[6]

The Urbita Springs were originally developed as a mineral bath and amusement park in the 1860, and water was piped at 1,000 feet. In 1966, the first contracts for the Inland Shopping Center were let in and the Urbita Hot Springs were destroyed. The site currently lies under parking lots and department stores of the Inland Shopping Center, west of the Central City South Project Area. Prior to the construction, the site was excavated and removed to a depth of 12 feet and backfilled. Today, there is a large subterranean drain that passes under a portion of the shopping center and surfaces just east of the Interstate 215 (I-215) freeway. A trickle of water in this drain is the last vestige of the Urbita Hot Springs.

The De Sienna Hot Springs were located 0.6 miles southwest of the Urbita Hot Springs on the southeast flank of a small knoll referred to as Bunker Hill. Historical resources indicate that a 547-foot-deep well was drilled in 1926 and had a temperature of 37 degrees Celsius.

Harlem and Rabel Hot Springs[7]

The Harlem Hot Springs are located north of the Baseline Road and Victoria Avenue intersection far east of the Tri-City Project Area. Natural hot springs originally flowed into Warm Creek. Historical resources indicate that in 1989 the first well was drilled to 300 feet and produced water of 46 degrees Celsius. The hot springs were then developed as a recreation park and picnic area and provided mineral water and mud baths. Use of the hot spring eventually let to deterioration.

The Rabel Hot Springs were located approximately 0.25 miles west of the Harlem Hot Springs. Development of the hot springs closely paralleled that of the Harlem Hot Springs. Rabel Hot Springs was operated as a spa in the late 1800s and offered mineral mud baths, but was closed as a spa in 1912. Immediately afterwards, the site was operated as a hog ranch until the Baseline Laundry was opened in 1916. The operating well on the property is used heavily by the laundry. The temperature of the well was measured at 28 degree Celsius on April 22, 1981. Historical newspapers from 1966 detail that water levels at the Harlem Hot Springs and Rabel Hot Springs have dropped 160 to 170 feet and water once hot, is now lukewarm. Both hot springs were originally naturally flowing springs which comprised the principle source of flow in Warm Creek. The apparent historical decrease in the geothermal area may suggest that the available geothermal resource there has a finite volume.

SOILS

Twenty-two soil series were identified in the City of San Bernardino; refer to *Table 5.9-1*, *Soil Characteristics*.

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6 Ibid.

7 City of San Bernardino Final General Plan Update and Associated Specific Plans EIR, prepared by The Planning Center, dated September 30, 2005.

Table 5.9-1
Soil Characteristics

Soil (Symbol)	Texture	Potential Limitations
Cieneba (CnD)	Sandy Loam	High erosion
Cieneba (Cr)	Rock Outcrop	Slope
Delhi (Db)	Fine Sand	High blowing soil
Friant (Fr)	Rock Outcrop	High erosion
Grangerville (Gr)	Fine Sandy Loam	None
Grangerville (Gs)	Fine Sandy Loam	None
Greenfield (GtC)	Sandy Loam	None
Greenfield (GrD)	Sandy Loam	High erosion
Hanford (HaC)	Coarse Sandy Loam	None
Hanford (HaD)	Coarse Sandy Loam	High erosion
Hanford (HbA)	Sandy Loam	None
Psamments/Fluvents (Ps)	-	Flooding
Ramona (RmC)	Sandy Loam	None
Ramona (RmD)	Sandy Loam	High erosion
Ramona (RmE2)	Sandy Loam	High erosion
Saugus (ShF)	Sandy Loam	High erosion
Soboba (SoC)	Gravelly Loamy Sand	None
Soboba (SpC)	Stony Loamy Sand	None
Tujunga (TuB)	Gravelly Loamy Sand	None
Tujunga (TvC)	Gravelly Loamy Sand	High blowing soil
Vista (Vr)	Rock Outcrop	Slope
Wasteland (W)	Variable	Slope

Source: *City of San Bernardino General Plan Update Technical Background Report*, Chapter 5, Hazards, prepared by Envicom Corporation, dated February 1988.

FAULTS AND FAULT ZONES

An earthquake fault is a fracture in the crust of the earth along which land on one side has moved relative to land on the other side. Most faults are the result of repeated displacements over a long period of time. A fault trace is the line on the earth's surface defining the fault.

Exhibit 5.9-2, *Regional Fault Map* and illustrates the major fault zones and their relationship to the City of San Bernardino. As indicated in *Exhibit 5.9-2* San Bernardino is traversed by numerous earthquake faults. The City is located between several active fault zones including: the San Andreas Fault, the San Jacinto Fault, the Glen Helen Fault, and the Loma Linda Fault. The San Jacinto Fault traverses the South Valle and Southeast Industrial Park Project Areas. Each of these faults is classified as Alquist Priolo Special Study Zones under the Alquist-Priolo Earthquakes Fault Zoning Act; refer to *Exhibit 5.9-3*, *Alquist-Priolo Earthquake Fault Zones*.

The California Division of Mines and Geology (CDMG) has designated specific faults within the Project Area as a part of the State of California Alquist-Priolo Special Study Zones. These zones extend parallel approximately 200 to 500 feet from designated faults.[8]

[8] City of San Bernardino General Plan, prepared by The Planning Center, dated November 1, 2005.

Active Faults

An active fault is defined by the State Mining and Geology Board as a fault that has "had surface displacement within Holocene times (about the last 11,000 years)." This definition does not mean that faults lacking evidence of surface displacement within Holocene times are necessarily inactive. A fault may be presumed to be inactive based on satisfactory geologic evidence; however, the evidence necessary to prove inactivity is sometimes difficult to obtain and locally may not exist. A potentially active fault is a fault that shows evidence of surface displacement during Quaternary time (last 1.6 million years).

Active faults and historically destructive earthquakes are generally characteristic of southern California. The City is located between several active faults. The San Andreas Fault traverses the City in a northwest to southeast direction, following the foothills along the northern edge of the City. The San Jacinto Fault (includes the Glen Helen and Loma Linda Faults) further traverse the City, also in a northwest to southeast direction, through the lower middle and southern portions of the City.

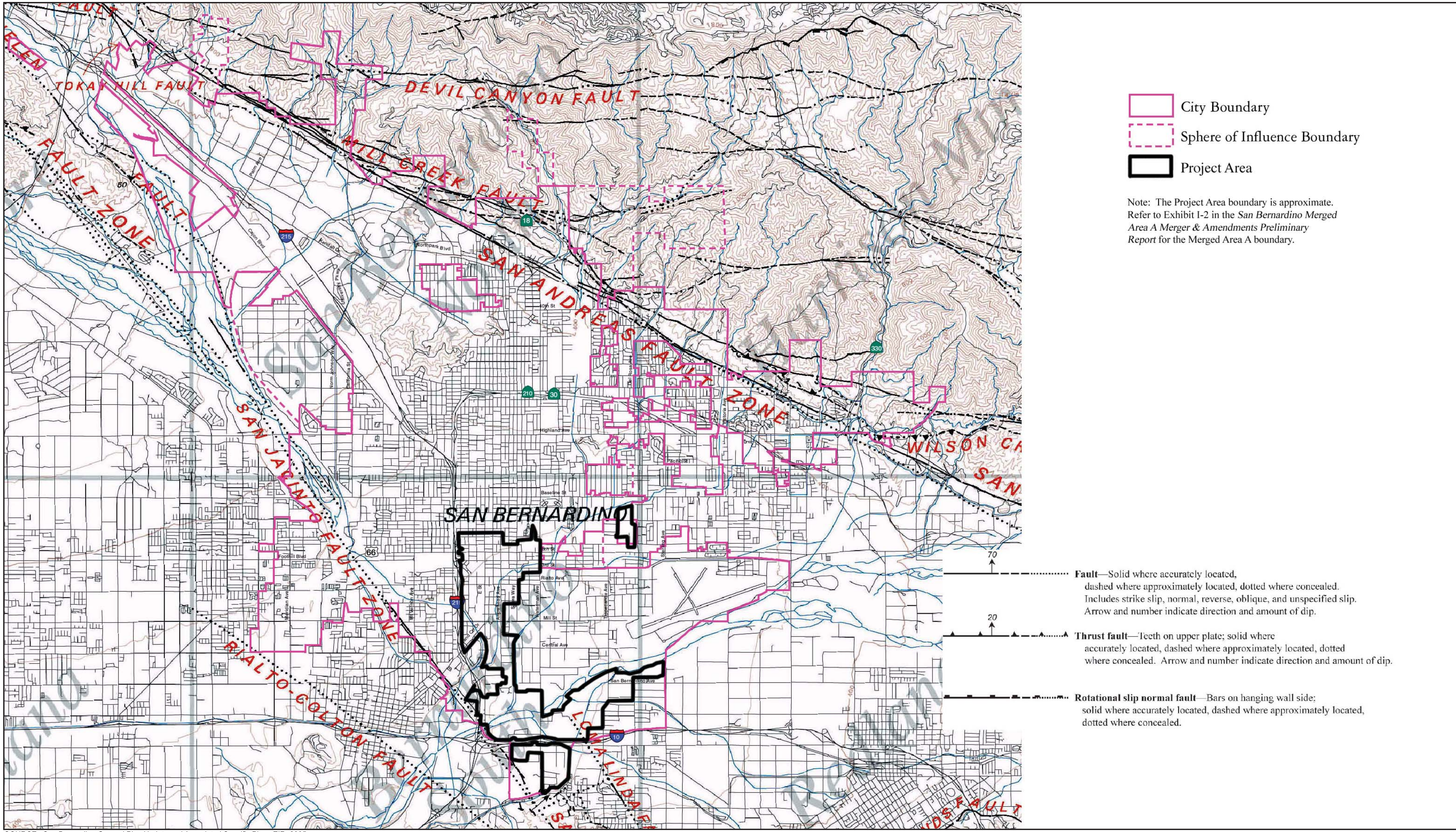
The UBC Seismic Zone Map divides the United States into zones of potential earthquake damage. The four UBC Seismic Zones are Zone 0 (no damage), Zone 1 (minor damage), Zone 2 (moderate damage), and Zone 3 (major damage), and Zone 4 (major damage caused by near-by fault movements) was added. The City of San Bernardino is located in Seismic Zone 4.[9] *Table 5.9-2*, *Principal Active Faults*, lists the maximum credible earthquake magnitude of each fault. The faults classified as active that affect the City are described below.

Table 5.9-2
Principal Active Faults

Fault	Maximum Credible Earthquake Magnitude (magnitude/peak g's)
San Andreas	8.5
San Jacinto (includes Glen Helen and Loma Linda) **(Located within South Valle and Southeast Industrial Park)**	7.5
Cucamonga-Sierra Madre	6.5+
Whittier-Elsinore	7.5-7.0
San Fernando	7.0
Hollywood-Raymond Hills	7.0
Newport-Inglewood	7.0
Santa Monica	7.0
Rialto-Colton	6.5
Helendale	7.0
Cleghorn	6.7
North Frontal	7.0
Crafton	6.4
Banning	6.9
Red Hill	6.5

Source: *City of San Bernardino General Plan Update Technical Background Report*, Chapter 5, Hazards, prepared by Envicom Corporation, dated February 1988.

[9] City of San Bernardino Final General Plan Update and Associated Specific Plans EIR, prepared by The Planning Center, dated September 30, 2005.



SOURCE: San Bernardino General Plan Update and Associated Specific Plans EIR, 2005.

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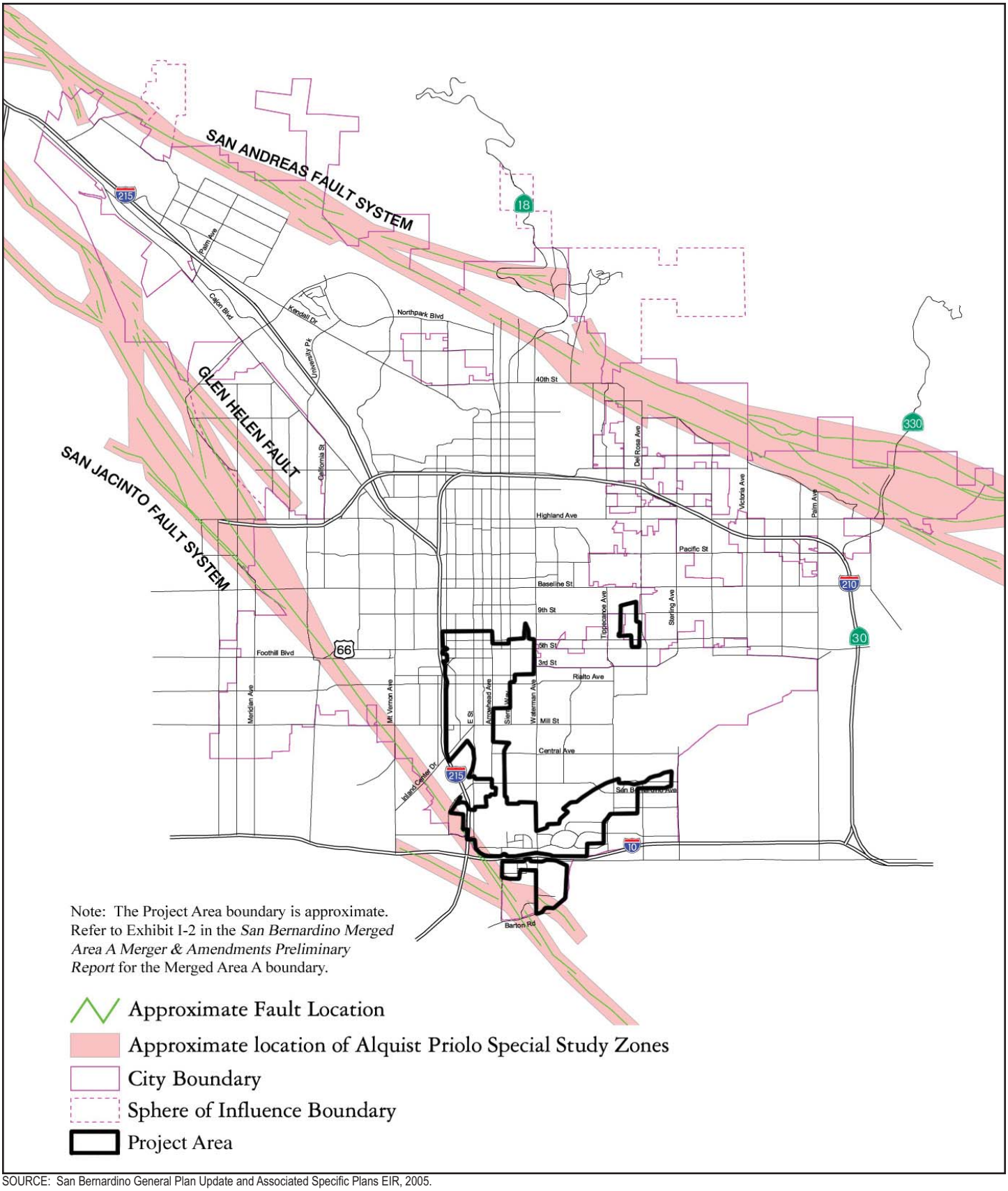
SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS

Regional Fault Map

Exhibit 5.9-2

Back of 11 X 17 Color Exhibit



SOURCE: San Bernardino General Plan Update and Associated Specific Plans EIR, 2005.

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ENVIRONMENTAL IMPACT REPORT
SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS

Alquist-Priolo Earthquake Fault Zones

Exhibit 5.9-3

San Andreas Fault Zone[10]

The San Andreas Fault system, including the north and south branches, forms the dominant fault feature within the City of San Bernardino. Three of California's largest historic earthquakes have occurred along this fault in 1857 near Fort Tejon, 1906 near San Francisco, and 1989 near Santa Cruz. The fault segment that affects the City of San Bernardino begins at the Salton Sea, runs along the southern base of the San Bernardino Mountains, crosses through the Cajon Pass and continues to run northwest along the northern base of the San Gabriel Mountains. The fault segment southeast of the Cajon Pass and within the San Bernardino area has not experienced a major earthquake for at least 265 years and possibly for as long as 600 years. Future predictions of magnitude and displacement currently cannot accurately be determined along the San Andreas Fault. However, regional studies indicate that a magnitude of 8.0 or larger earthquake could be expected to occur in the future and should be considered for planning and design purposes.

San Jacinto Fault Zone[11]

The San Jacinto Fault system includes the Glen Helen, San Jacinto, and Loma Linda Faults within the City of San Bernardino. The San Jacinto Fault traverses the South Valle and Southeast Industrial Park Project Areas. These faults display Late Quaternary to Holocene activity with small earthquakes evident near their fault traces. The San Jacinto Fault zone has been most prolific in historical time. Approximately 10 events have taken place from 1895 to 1980 over a fault length of 120 miles, with about one-half of these events causing damage in San Bernardino-Riverside area. Regional studies suggest that a magnitude 7.0 to 7.5 earthquake is possible on the San Jacinto Fault system that would affect the City of San Bernardino.

Cucamonga-Sierra Madre Fault Zone[12]

The Cucamonga-Sierra Madre fault system is part of a reverse and thrust fault zone that bounds the southern margin of the eastern San Gabriel Mountains, approximately 10 miles northwest of the central City area. The fault is known to have generated a significant earthquake in historic time, but a series of fault scarps in the Holocene alluvial fan deposits at the southeastern base of the San Gabriel Mountains indicates a succession of ground-rupturing earthquakes in the past. Earthquake scenarios that could affect the San Bernardino planning area range from magnitude 6.5 to 6.75.

Whittier-Elsinore Fault Zone[13]

The Whittier-Elsinore fault system is located approximately 25 miles west of the City of San Bernardino. The Elsinore Fault system extends approximately 120 miles from the Mexican border areas, northwest, beyond the Santa Ana Mountains. The Whittier Fault extends further

[10] City of San Bernardino Final General Plan Update and Associated Specific Plans EIR, prepared by The Planning Center, dated September 30, 2005.
[11] Ibid.
[12] Ibid.
[13] City of San Bernardino Final General Plan Update and Associated Specific Plans EIR, prepared by The Planning Center, dated September 30, 2005.

northwest from the Elsinore fault zone. A magnitude 6.5 design earthquake is considered to be reasonable for these faults.

San Fernando Fault Zone[14]

The San Fernando Fault is located approximately 64 miles west of the City of San Bernardino. The fault is a reverse fault near the back of the San Gabriel Mountains that is approximately 9 miles long and was the source of the 1971 magnitude 6.6 San Fernando earthquake.

Hollywood-Raymond Fault[15]

The eastern terminus portion of the Hollywood-Raymond Hills fault system is located approximately 42 miles west of the City of San Bernardino. The Hollywood-Raymond Hills Fault system extends in an east-west direction along the south side of the Santa Monica Mountains and may be continuous with the Raymond Fault in the vicinity of Glendale. The Raymond Fault exhibits fault scarps, sag ponds, and deformation and offset of Holocene strata.

Newport-Inglewood Fault Zone[16]

The Newport-Inglewood Fault is a northwest trending fault displaying a complex zone of deformation from Beverly Hills to south of Laguna Beach. The Newport-Inglewood Fault has been the source of damaging earthquakes such as the magnitude 6.3 in 1933 at Long Beach. This fault is located approximately 57 miles west of the City of San Bernardino.

Santa Monica Fault[17]

The Santa Monica Fault is a part of a major east-west trending system of reverse faults that extend from northeast of Santa Monica into the Santa Barbara Channel. Late Quaternary offset is evident and probable of earthquake magnitudes of 6.5 could be expected along this fault, located approximately 70 miles west of the City of San Bernardino.

Rialto-Colton Fault[18]

The Rialto-Colton Fault consists of two echelon strands with a total length of approximately 16 miles that trend in a northwest direction. No surface offset is evident for this fault but small earthquakes have occurred near its subsurface trace. The fault is located approximately 4 miles from the City of San Bernardino.

Helendale Fault[19]

The Helendale Fault consists of numerous echelon strands up to 2.5 miles long trending northwest. Total length of the strands is approximately 54 miles. Holocene surface faulting and

[14] Ibid.
[15] Ibid.
[16] Ibid.
[17] Ibid.
[18] Ibid.
[19] City of San Bernardino Final General Plan Update and Associated Specific Plans EIR, prepared by The Planning Center, dated September 30, 2005.

associated small earthquakes is evident. The fault is located approximately 38 miles from the City and is located along the north side of the San Bernardino Mountains and east of Victorville.

Cleghorn Fault[20]

The Cleghorn Fault is a single strand trending northwest with probable Holocene offset and numerous small earthquakes associated with the eastern end of the 14-mile long trace. The fault is located along the northwest end of the San Bernardino Mountains and approximately 13 miles northwest of the City of San Bernardino.

North Frontal Fault[21]

The North Frontal Fault zone is comprised of numerous discontinuous acuate strands averaging 1.5 to 2.5 miles in length with a total overall length of approximately 30 miles. Late Quaternary offset occurs along the fault zone; however, overlying Holocene alluvial fans are not faulted. Numerous closely associated small earthquakes have been recorded near the eastern end of the fault zone. The zone is located along the north front of the San Bernardino Mountains approximately 17 miles north of the City of San Bernardino.

Crafton Fault[22]

The Crafton Fault consists of accurate echelon strands approximately 5 miles in length with evidence of Late Quaternary offset. The fault is located approximately 7 miles south of the City of San Bernardino.

Banning Fault[23]

The Banning Fault zone consists of two or three strands in a zone approximately 2.5 miles wide trending from northwest to west with a total length of approximately 27 miles. Holocene strate are offset in the fault zone and numerous small earthquakes are also closely associated with the zone. The fault zone is located approximately 16 miles south-southeast of the City of San Bernardino.

Red Hill Fault[24]

The Red Hill Fault is a presumed single strand fault trending northwest to nearly east-west with a length of approximately 9 miles. The fault extends through the Pomona area about 10 miles west of the City of San Bernardino. Holocene strata have been offset at the eastern end and scattered small earthquakes have occurred near the fault trace.

[20] Ibid.
[21] Ibid.
[22] Ibid.
[23] Ibid.
[24] Ibid.

SEISMIC HAZARDS

There are potential primary and secondary seismic hazards associated with earthquakes. The primary seismic hazard associated with earthquakes is strong groundshaking. The secondary seismic hazards are surface fault rupture, ground failure (i.e., earthquake-induced land sliding, fracturing/cracking/fissuring, compaction/subsidence/uplift, and liquefaction), and tsunamis/seiche. The following discussion addresses the primary and secondary seismic hazards.

Groundshaking

Groundshaking is the motion felt on the earth's surface caused by seismic waves generated by the earthquake. It is the primary cause of earthquake damage. The degree of groundshaking that would occur in the City is dependent on the particular fault, fault location, distance from the City, and magnitude of the earthquake. Additionally, the soil and geologic structure underlying the City influences the amount of damage that the City may experience. Buildings on poorly consolidated and thick soils will typically see more damage than buildings on consolidated soils and bedrock. Alluvium deposits that may become unstable during intense ground shaking underlie the City.

The City has been regionally designated as a high severity zone where major probable damage of maximum IX or X, as defined by the Mercalli Intensity Scale, may occur from a maximum expectable earthquake. The Mercalli Intensity Scale differs from the Richter Magnitude Scale in that the effects of any one earthquake vary greatly from place to place, so there may be many intensity values measured from one earthquake. On the other hand, each earthquake should have just one magnitude, although the several methods of estimating it will yield slightly different values. Typical structural damage on the Modified Mercalli Intensity Scale for IX and X includes masonry severely damaged if reinforced, and destroyed if unreinforced, and general damage to wood frame structures.[25]

Surface Fault Rupture

Surface fault rupture occurs when movement on a fault deep within the earth breaks through to the surface. A surface fault rupture may occur suddenly during an earthquake or slowly in the form of fault creep. Sudden displacements are more damaging to structures, because they are accompanied by shaking. Fault creep is the slow rupture of the earth's crust. As indicated in *Exhibit 5.9-2,* the City is located between several active fault zones (San Andreas Fault, San Jacinto Fault, Glen Helen Fault, and Loma Linda Fault) of which are classified as Alquist Priolo Special Study Zones under the Alquist-Priolo Earthquakes Fault Zoning Act; refer to *Exhibit 5.9-3*. The San Jacinto Fault traverses the South Valle and Southeast Industrial Park Project Areas. Therefore, surface fault rupture may occur in the City.

[25] City of San Bernardino Final General Plan Update and Associated Specific Plans EIR, prepared by The Planning Center, dated September 30, 2005.

Seismic-Related Ground Failure

Various types of seismic-related ground failures accompany earthquakes, including the following:

- Earthquake-induced landsliding;
- Fracturing, cracking, and fissuring;
- Compaction and uplift; and
- Liquefaction and lateral spreading.

The potential for these types of ground failures to occur within the City are discussed below.

Earthquake-Induced Landsliding

Earthquake-induced landslides are secondary earthquake hazards that occur from ground shaking. They can destroy the roads, buildings, utilities, and other critical facilities necessary to respond and recover from an earthquake. Several communities in Southern California have a high likelihood of encountering such risks, especially in areas with steep slopes. Currently, the City of San Bernardino is located outside a mapped area for Seismic Hazard Zones, which establishes regulatory zones that encompass areas prone to earthquake-induced landslides and liquefaction (failure of water-saturated soil). According to the Preliminary Soil-Slip Susceptibility Map for the southern half of San Bernardino, portions of the City of San Bernardino, including the Project Area, are located within areas designated as having either low, moderate, or high soil-slip susceptibility which could be induced seismically.[26]

Fracturing, Cracking, and Fissuring

Groundshaking, settling, compaction, and sliding produce irregular fractures, cracks, and fissures from a few inches to many feet in length. Such fractures may displace soil and earth in a manner similar to faults. Fractures of this type are rare in bedrock, but are most significant in weathered rocks, alluvium, and alluvial basins up to 75 to 80 miles from the epicenter of a great earthquake surface. Fracturing, cracking, and fissuring may occur within the City and Project Area.

Compaction and Uplift

Compaction of loose soils and poorly consolidated alluvium occur as a result of strong seismic shaking. The amount of compaction may vary from a few inches to several feet and may be significant in areas of thick soil cover. Furthermore, tectonic subsidence, uplift tilting, and warping may occur within the City and Project Area.

Liquefaction and Lateral Spreading

Liquefaction is a hazard associated with intense ground shaking. During seismic events, the earth accelerates and soils can destabilize, particularly when sufficient water is present in the soil. The destabilized soil and water can mix, resulting in liquefaction. Liquefaction is generally associated with shallow ground water conditions and the presence of loose and sandy soils or

[26] City of San Bernardino Final General Plan Update and Associated Specific Plans EIR, prepared by The Planning Center, dated September 30, 2005.

alluvial deposits. Lateral spreading results from liquefaction or plastic deformation of soil occurring on gently sloping ground during an earthquake. The conditions occur when blocks of mostly intact surficial soil are displaced down slope along a sheer zone that has formed within liquefied sediment. As previously mentioned above, the City is currently located outside a mapped area for Seismic Hazard Zones, which established regulatory zones that encompass areas prone to liquefaction and earthquake-induced landslides. However, two general zones have been identified within the regional area, "high" and "moderately high to moderate" zones based on past technical studies. High zones are located adjacent to the San Andreas Fault zone north and northeast of the City and in the old artesian area between the San Andreas and San Jacinto Faults in the central and southern parts of the City. These particular zones delineate regional susceptibility; however, the zones can vary greatly due to groundwater level changes[27]. The Southeast Industrial Park, Meadowbrook/Central City, Central City North, Central City South, and Central City East Project Areas are approximately located within areas of high liquefaction susceptibility. The South Valle, Southeast Industrial Park, and Tri-City Project Areas are approximately located within areas of both moderately high to moderate liquefaction susceptibility; refer to *Exhibit 5.9-4, Liquefaction Susceptibility*.

Tsunamis and Seiches

A tsunami is a seismic sea-wave caused by sea-bottom deformations that are associated with earthquakes, landslides, or volcanic activity beneath the ocean floor. The hazard from tsunamis is considered to be remote given that the City is located sufficiently inland. A seiche is defined as a wave that oscillates in lakes, bays, or gulfs from a few minutes to a few hours, as a result of seismic or atmospheric disturbances. The City is not located downslope of any large bodies of water. Therefore, the likelihood of an earthquake-induced seiche is considered remote.

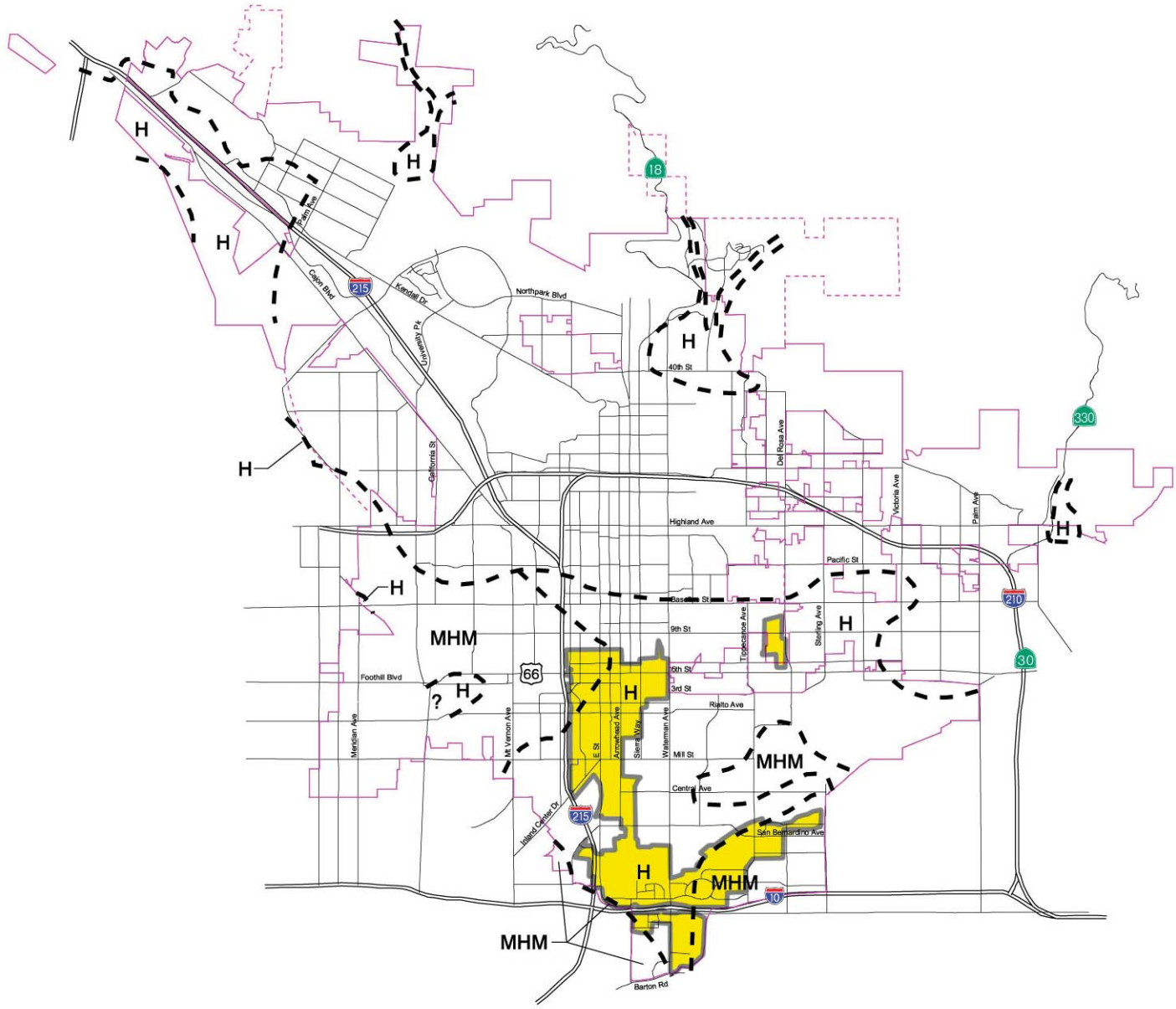
GEOLOGIC HAZARDS

Potential geologic hazards include slope instability, compressible soils, ground subsidence, and soil erosion hazards.

Landslides/Slope Instability[28]

General slope stability is determined by a number of factors including slope, vegetative cover, bedrock, soil, precipitation, wildfire, and human alteration. Slopes may be in temporary equilibrium until one of the above factors is modified by natural or human activity resulting in an unstable condition and potential failure. *Exhibit 5.9-5, Soil-Slip Susceptibility*, depicts areas in the City of San Bernardino which are potentially susceptible to slope failure. According to the Preliminary Soil-Slip Susceptibility Map for the southern portion of San Bernardino, portions of the City are located within areas designated as either having low, moderate, or high soil-slip susceptibility. The Project Area is located within in a flat area and is not susceptible to landslides or slope instability.

[27] City of San Bernardino Final General Plan Update and Associated Specific Plans EIR, prepared by The Planning Center, dated September 30, 2005.
[28] Ibid.



H Approximate Location of Areas of High Liquefaction Susceptibility

MHM Approximate Location of Areas of Moderately High to Moderate Liquefaction Susceptibility

City Boundary

Sphere of Influence Boundary

Project Area

Note: The Project Area boundary is approximate. Refer to Exhibit I-2 in the *San Bernardino Merged Area A Merger & Amendments Preliminary Report* for the Merged Area A boundary.

Note: Not to be used as a substitute for site-specific geotechnical iquefaction induced ground failures should be addressed. Boundaries between susceptibility zones will shift if ground water conditions raise or lower over time. Zonations based on sub-surface geology, ground water levels, and maximum credible earthquakes on the San Andreas Fault System, the San Jacinto Fault System and the Cucamonga Fault. (After Matti and Carson, 1986)

SOURCE: San Bernardino General Plan Update and Associated Specific Plans EIR, 2005.

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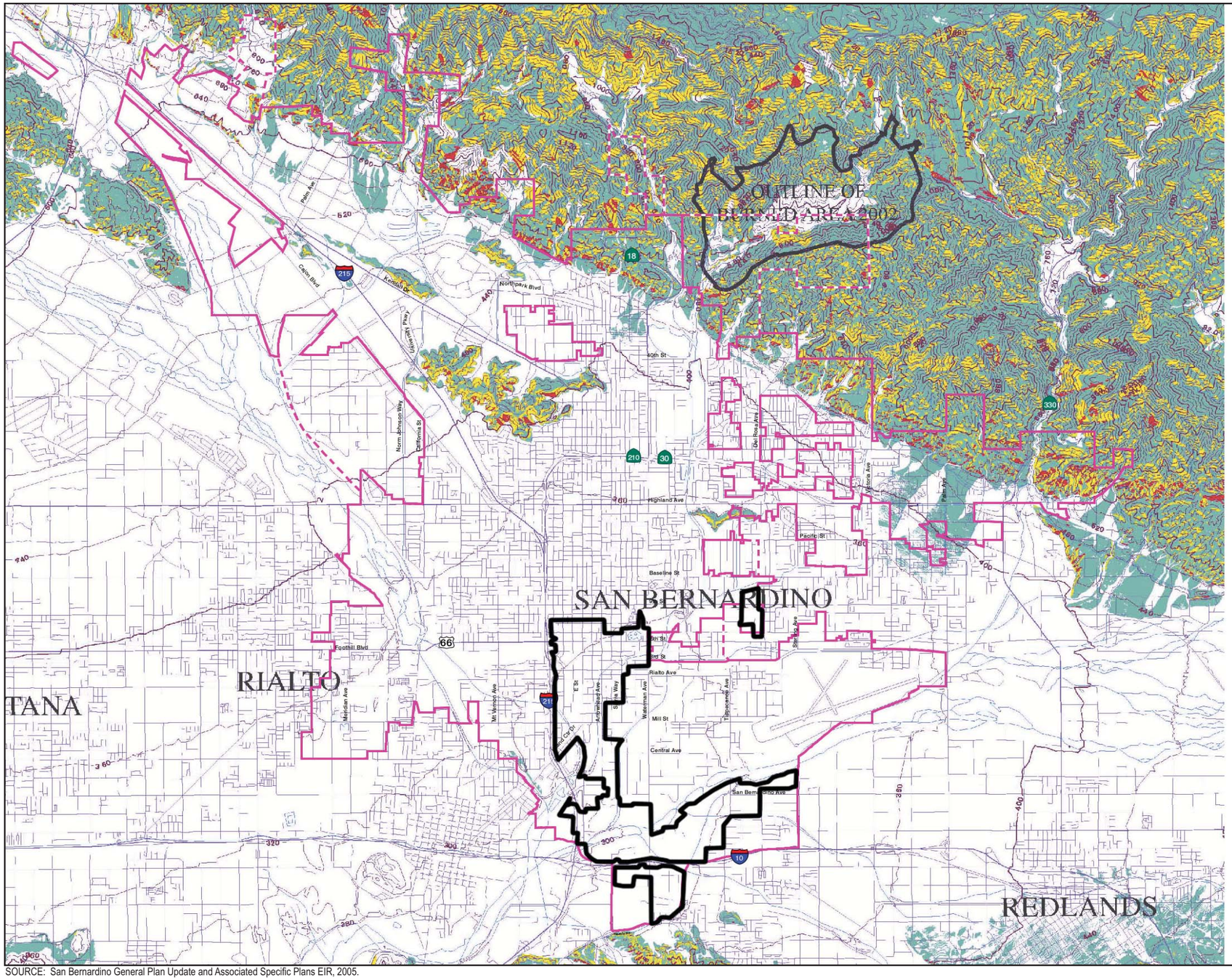
SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS

Liquefaction Susceptibility

Exhibit 5.9-4



Low Susceptibility

Moderate Susceptibility

High Susceptibility

Uncolored areas have zero soil-slip susceptibility values.

City Boundary

Sphere of Influence Boundary

Project Area

Note: The Project Area boundary is approximate. Refer to Exhibit I-2 in the *San Bernardino Merged Area A Merger & Amendments Preliminary Report* for the Merged Area A boundary.

SOURCE: San Bernardino General Plan Update and Associated Specific Plans EIR, 2005.

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ENVIRONMENTAL IMPACT REPORT
SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS

Soil-Slip Susceptibility

Exhibit 5.9-5

Back of 11 x 17 color exhibit

Compressible Soils[29]

Poorly consolidated or highly compressible soils are expected to have low bearing capacities and therefore liable to different settlement. With highly compressible soils, water drains faster than cohesive soils and the load is transferred immediately. This process is known as compression, or settlement. The amount of settlement is dependent on the applied load, structure, and moisture content of the soil. Compression of the soils brought about by an increase in stress from construction, foundation or other results in a deformation and relocation of soil particles, and expulsion of water or air from void spaces. Additionally, younger soils, which include textured sandy and silty soils, contain less well compacted sediments and are therefore more susceptible to settlement.

Ground Subsidence[30]

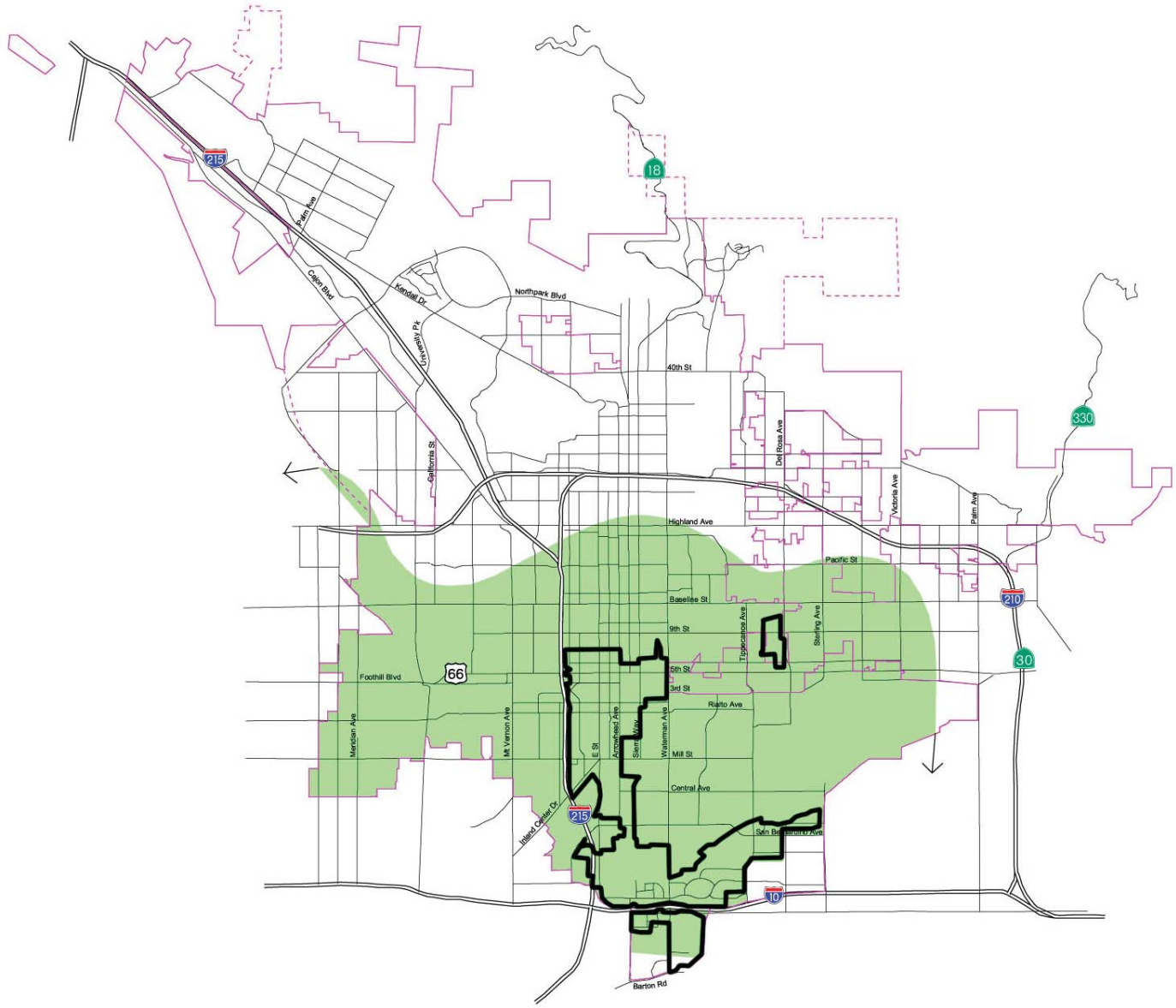
In California, subsidence related to man's activities has been attributed to withdrawal of subsurface fluids such as oil and groundwater, oxidation of organic materials such as coal and peat, and by hydroconsolidation of loose, dry soils in a semi-arid climate. Ground subsidence can affect structures sensitive to slight changes in elevation or slope such as highways, railroads, canals, sewers, and pipelines. Subsidence commonly occurs in such slight magnitude and over large areas that it is not perceptible to an observer without detailed regional surveying studies. Smaller buildings within a uniform subsidence area may not sustain damage unless differential subsidence should occur. Differential subsidence may adversely affect the integrity of structures built within these areas.

Historically, up to one foot of subsidence may have occurred within the City of San Bernardino. The historic area of subsidence was within the thick poorly consolidated alluvial and marsh deposits of the old artesian area north of Loma Linda. The potential subsidence in the area could potentially be as great as five to eight feet if ground water is depleted from the Bunker Hill (San Timoteo Basin). In the San Bernardino area, the potential for subsidence has been significantly reduced since 1972, when the San Bernardino Municipal Water District began to maintain groundwater levels from recharge to percolation basins, which in turn filter back into the alluvial deposits. The entire Project Area is susceptible to subsidence; refer to *Exhibit 5.9-6, Potential Subsidence Areas*.

Erosion

Soil erosion is a naturally occurring process on all land. The agents of soil erosion are water and wind. Soil erosion may be a slow process that continues relatively unnoticed, or it may occur at an alarming rate causing serious loss of topsoil. The rate and magnitude of soil erosion by water is controlled by the following factors: rainfall intensity and runoff; slope gradient; soil erodibility; and length; and vegetation cover.

[29] City of San Bernardino Final General Plan Update and Associated Specific Plans EIR, prepared by The Planning Center, dated September 30, 2005.
[30] Ibid.



Areas of Potential Ground Subsidence

City Boundary

Sphere of Influence Boundary

Project Area

Note: The Project Area boundary is approximate. Refer to Exhibit I-2 in the *San Bernardino Merged Area A Merger & Amendments Preliminary Report* for the Merged Area A boundary.

Note: Degree of subsidence dependent on groundwater levels. Historic subsidence may have occurred in above area. (After Fife and others, 1976)

SOURCE: San Bernardino General Plan Update and Associated Specific Plans EIR, 2005.

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ENVIRONMENTAL IMPACT REPORT
SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS

Potential Subsidence Areas

Exhibit 5.9-6

Soil erodibility is an estimate of the ability of soils to resist erosion, based on the physical characteristics of each soil. Some soil types are more susceptible to wind and rain erosion than others; refer to *Table 5.9-1*. The Delhi fine sand and Tujunga loamy sand are both susceptible to wind erosion if left exposed without adequate vegetative cover. Delhi fine sand and Tujunga loamy sand are found on old alluvial fans or floodplain areas on slopes ranging 0 to 15 percent. The fine sandy texture is especially prone to erosion during periods of high winds that frequent the area. The Cienaba sandy loam, Friant rock outcrop, Greenfield sandy loam, and Saugus sandy loam are all susceptible to water erosion. The Cienaba sandy loam, Friant rock outcrop, Greenfield sand loam, and Saugus sandy loam are found on variable slopes ranging from 2 to 50 percent depending on particular soil type. These soils commonly occur on alluvial fans, hills, and at the base of the San Bernardino Mountain front. Rapid precipitation runoff, denudations, and sandy soil texture can lead to potential water erosion of these soils. Hillside grading without proper erosion control plans, and off-road vehicle use in areas of erosion-prone soils may increase the hazards.[31]

5.9.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of this EIR. The Initial Study Checklist includes questions relating to geology and seismic hazards. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Involve earth movement (cut and/or fill) based on information included in the Project Description Form.
- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death.
- Be located within an Alquist-Priolo Earthquake Fault Zone.
- Result in substantial soil erosion or the loss of topsoil.
- Be located within an area subject to landslides, mudslides, subsidence, or other similar hazards as identified in the City's General Plan.
- Be located within an area subject to liquefaction as identified in the City's General Plan.
- Modify any unique physical feature based on a site survey/evaluation (refer to Section 8.0, Effects Found Not To Be Significant).
- Result in erosion, dust, or unstable soil conditions from excavation, grading, fill, or other construction activities (refer to Section 8.0, Effects Found Not To Be Significant);.

[31] City of San Bernardino Final General Plan Update and Associated Specific Plans EIR, The Planning Center, September 30, 2005.

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.9.4 PROJECT IMPACTS AND MITIGATION MEASURES

EARTH MOVEMENT

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD INVOLVE EARTH MOVEMENT (CUT AND/OR FILL).**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: The proposed project does not involve earth movement (cut and/or fill). However, as a part of the proposed project, a series of infrastructure facilities (i.e., roadway, storm drain, curb and gutter, sewer/water improvements) may be constructed, which could involve earth movement. Mitigation has been recommended in order to reduce impacts associated with earth movement to less than significant levels. Numerous controls would be imposed on future development through the plan checking and permitting process that would further lessen impacts associated with earthwork. All future development would be subject to compliance with applicable building codes (i.e., City *Building Code*, *Uniform Building Code*, *California Building Code*) and recommended mitigation, which would lessen potential impacts associated with earthwork to less than significant levels.

General Plan Goals and Policies: Not Applicable.

Mitigation Measures:

GEO-1 Prior to issuance of a Grading Permit for each development project, a geotechnical engineer shall prepare an area-specific Geologic Report, which shall be submitted to the Community Development (Building and Safety) for approval. The Geologic Report shall specify the measures necessary to mitigate impacts related to liquefaction, expansion, and other geologic and seismic hazards, if any. All recommendations in the Geologic Report shall be implemented during area preparation, grading, and construction.

GEO-2 Prior to issuance of any Grading Permit, applicants of development projects shall comply with each of the recommendations detailed in the Geotechnical Report, and other such measure(s) as the City deems necessary to adequately mitigate potential seismic and geotechnical hazards.

GEO-3 All grading, landform modifications, and construction shall be in conformance with Title 15, Division 1 of the San Bernardino Municipal Code. Typical standard minimum guidelines regarding regulations to control excavations, grading, earthwork construction, including fills and embankments and provisions for approval of plans and inspection of grading construction are set from the latest version of the California Building Code. Compliance with these standards shall

be evident on grading and structural plans. This measure will be monitored by the City Building and Safety Division through periodic site inspections.

Level of Significance After Mitigation: Less Than Significant Impact.

SEISMIC GROUNDSHAKING

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD EXPOSE PEOPLE AND STRUCTURES TO POTENTIALLY SUBSTANTIAL ADVERSE EFFECTS INVOLVING STRONG SEISMIC GROUNDSHAKING OR BE LOCATED WITHIN AN ALQUIST-PRIOLO EARTHQUAKE FAULT ZONE.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: The City of San Bernardino is located within a seismically active region of southern California. The City is located between several active faults. The San Andreas Fault traverses the City in a northwest to southeast direction, following the foothills along the northern edge of the City. The San Jacinto Fault (includes the Glen Helen and Loma Linda Faults) further traverses the City within the South Valle and Southeast Industrial Project Areas. The San Jacinto Fault traverses in a northwest to southeast direction through the lower middle and southern portions of the City. Each of these faults is classified as Alquist Priolo Special Study Zones under the Alquist-Priolo Earthquakes Fault Zoning Act; refer to *Exhibit 5.9-3.* The CDMG has designated specific faults within the Project Area as a part of the State of California Alquist-Priolo Special Study Zones. Additionally, several other active faults located nearby can generate ground shaking in San Bernardino; refer to *Table 5.9-2*. The City is located in Seismic Zone 4, the highest hazard zone, and therefore susceptible to strong groundshaking. The southern portion of the Project Area, predominantly the Southeast Industrial Park and South Valle Project Areas, closest to the I-10/I-215 interchange is considered to have the highest potential for fault rupture. The City has been regionally designated as a high severity zone where major probable damage of maximum IX or X, as defined by the Mercalli Intensity Scale, may occur from a maximum expectable earthquake.[32]

The intensity of groundshaking would depend upon the magnitude of the earthquake, distance to the epicenter and the geology of the area between the epicenter and the City. The project proposes the consolidation of seven individual redevelopment Project Areas into one area. Implementation of the proposed project would result in the addition of 1,833 dwelling units and 6,200,590 square feet of non-residential development, which could induce population growth, thereby potentially exposing more residents and employees to the effects of ground shaking from locally and regionally generated earthquakes.

Strong seismic groundshaking could result in substantial damage to some new buildings within the City. The effects of groundshaking would be sufficiently mitigated for buildings designed and constructed in conformance with current building codes and engineering standards. However, there is the possibility of partial to total collapse of buildings built prior to 1933 and some tilt-up concrete block buildings built prior to 1972. Structural vulnerabilities in older buildings that are less earthquake resistant are most likely to contribute to the largest source of

[32] City of San Bernardino Final General Plan Update and Associated Specific Plans EIR, prepared by The Planning Center, dated September 30, 2005.

injury and economic loss as a result of an earthquake. In accordance with the Unreinforced Masonry Law the City has identified structures within the City, which may be hazardous in the event of surface rupture. Structures and persons residing in these structures within the Earthquake Fault Zone and within close proximity to other active faults within the City may be exposed to substantial adverse effects, such as potential structural collapse, in the event of surface rupture.[33]

Implementation of the proposed project could expose people or structures to potential substantial adverse effects as a result of strong seismic groundshaking. Impacts associated with seismically induced groundshaking would be considered significant, unless mitigated. Mitigation has been recommended in order to reduce impacts associated with seismically induced groundshaking to less than significant levels. The mitigation involves compliance with the recommendations detailed in site-specific Geotechnical Studies conducted as part of future development. Also, numerous controls would be imposed on future development through the permitting process that would further lessen impacts associated with seismically-induced groundshaking. Additionally, the *General Plan* Safety Element includes goals and policies to protect the community from risks associated with seismic hazards. These measures acknowledge safety concerns pertaining to seismic ground shaking. All future development would be subject to compliance with applicable building codes (i.e., *City Building Code*, *Uniform Building Code*, *California Building Code*), *General Plan* goals and policies, the *Emergency Management Plan*, the *Hazards Mitigation Plan*, and Mitigation Measures GEO-1 and GEO-2, which would lessen potential impacts associated with strong seismic groundshaking to less than significant levels.

General Plan Goals and Policies:

SAFETY ELEMENT

Goal 10.7 **Protect life, essential lifelines, and property from damage resulting from seismic activity.**

Policy 10.7.1 Minimize the risk of life and property through the identification of potentially hazardous areas, establishment of proper construction design criteria, and provision of public information.

Policy 10.7.2 Require geologic and geotechnical investigations for new development in areas adjacent to known fault locations and approximate fault locations (General Plan Figure S-3) as part of the environmental and/or development review process and enforce structural setbacks from faults identified through those investigations.

Policy 10.7.3 Enforce the requirements of the California Seismic Hazards Mapping and Alquist-Priolo Earthquake Fault Zoning Acts when siting, evaluating, and constructing new projects within the City.

[33] City of San Bernardino Final General Plan Update and Associated Specific Plans EIR, prepared by The Planning Center, dated September 30, 2005.

Policy 10.7.4 Determine the liquefaction potential at a site prior to development, and require that specific measures be taken, as necessary, to prevent or reduce damage in an earthquake.

Goal 10.8 Prevent the loss of life, serious injuries, and major disruption caused by the collapse of or sever damage to vulnerable buildings in an earthquake.

Policy 10.8.1 Enforce the requirements of the California Seismic Hazards Mapping and Alquist-Priolo Earthquake Fault Zoning Acts when siting, evaluating, and constructing new projects within the City.

Policy 10.8.2 Require that lifelines crossing a fault be designed to resist the occurrence of fault rupture.

Policy 10.8.3 Adopt a program for the orderly and effective upgrading of seismically hazardous buildings in the City for the protection of health and safety. Compliance with the Unreinforced Masonry Law shall include the enactment of an effective program for seismic upgrading of unreinforced masonry buildings within the City.

Goal 10.9 Minimize exposure to and risks from geologic activities.

Policy 10.9.1 Minimize risk to life and property by properly identifying hazardous areas, establishing proper construction design criteria, and distribution of public information.

Policy 10.9.2 Require geologic and geotechnical investigations in areas of potential geologic hazards as part of environmental and/or development review process for all new structures.

Policy 10.9.3 Require that new construction and significant alterations to structures located within potential landslide areas (General Plan Figure S-7) be evaluated for site stability, including potential impact to other properties during project design and review.

Mitigation Measures: Refer to Mitigation Measures GEO-1 and GEO-2. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

SEISMIC-RELATED GROUND FAILURE

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD EXPOSE PEOPLE AND STRUCTURES TO POTENTIAL SUBSTANTIAL ADVERSE EFFECTS INVOLVING SEISMIC-RELATED GROUND FAILURE (I.E., LANDSLIDES, SUBSIDENCE, AND LIQUEFACTION).**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Implementation of the proposed project would result in potentially significant impacts involving the exposure of people or structures to potential substantial adverse effects involving:

- Earthquake-induced landsliding;
- Fracturing, cracking, or fissuring; and
- Compaction, liquefaction, subsidence, or uplift.

Several communities in Southern California have a high likelihood of encountering earthquake-induced landslides, especially in areas with steep slopes. Currently, the City of San Bernardino is located outside a mapped area for Seismic Hazard Zones, which establishes regulatory zones that encompass areas prone to earthquake-induced landslides and liquefaction (failure of water-saturated soil). According to the Preliminary Soil-Slip Susceptibility Map for the southern half of San Bernardino, portions of the City of San Bernardino, including the Project Area, are located within areas designated as having either low, moderate, or high soil-slip susceptibility which could be induced seismically.[34]

Groundshaking, settling, compaction, and sliding produce irregular fractures, cracks, and fissures from a few inches to many feet in length and are rare in bedrock, but are most significant in weathered rocks, alluvium, and alluvial basins up to 75 to 80 miles from the epicenter of a great earthquake surface. Fracturing, cracking, and fissuring may occur within the City and Project Area.

Compaction of loose soils and poorly consolidated alluvium occur as a result of strong seismic shaking. The amount of compaction may vary from a few inches to several feet and may be significant in areas of thick soil cover. Furthermore, tectonic subsidence, uplift tilting, and warping may occur within the City and the Project Area.

Liquefaction is a hazard associated with intense ground shaking. As previously mentioned above, the City is currently located outside a mapped area for Seismic Hazard Zones. However, two general zones have been identified within the regional area, “high” and “moderately high to moderate” zones based on past technical studies. High zones are located adjacent to the San Andreas Fault zone north and northeast of the City and in the old artesian area between the San Andreas and San Jacinto Faults in the central and southern parts of the City. These particular zones delineate regional susceptibility; however, the zones can vary greatly due to groundwater level changes[35]. The Southeast Industrial Park,

[34] City of San Bernardino Final General Plan Update and Associated Specific Plans EIR, prepared by The Planning Center, dated September 30, 2005.
[35] Ibid.

Meadowbrook/Central City, Central City North, Central City South, and Central City East Project Areas are approximately located within areas of high liquefaction susceptibility. The South Valle, Southeast Industrial Park, and Tri-City Project Areas are approximately located within areas of both moderately high to moderate liquefaction susceptibility; refer to *Exhibit 5.9-4*. Therefore, implementation of the proposed project could expose people or structures to potential substantial adverse effects involving landslides, subsidence, and liquefaction. This impact is considered significant unless mitigated. Mitigation Measure GEO-1 requires site-specific geologic investigation of liquefaction potential for development projects within the City and Mitigation Measure GEO-2 requires the implementation of recommended measures identified in a Geotechnical Study to reduce impacts. Further, the Seismic Hazards Mapping Act specifies that the lead agency may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils. If a geologic report concludes landslides, subsidence, and liquefaction impacts cannot be reduced to less than significant with mitigation as necessary, development would not be permitted. Therefore, following compliance with applicable building codes, *General Plan* goals and policies, the *Emergency Management Plan,* the *Hazards Mitigation Plan,* and recommended mitigation, impacts would be less than significant in this regard.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measures GEO-1 and GEO-2. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

SOIL EROSION

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN IMPACTS RELATED TO SOIL EROSION OR THE LOSS OF TOPSOIL.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: Construction activities within the Project Area have the potential to result in soil erosion during excavation, grading and soil stockpiling, subsequent siltation, and conveyance of other pollutants into municipal storm drains. Construction associated with future development (1,833 dwelling units and 6,200,590 square feet of non-residential development) would be required to comply with the requirements of the Municipal National Pollutant Discharge Elimination System (NPDES) Construction Permit and would implement City grading permit regulations that include compliance with erosion control measures, including grading and dust control measures.

Specifically, construction associated with future development projects would occur in accordance with Chapter 8.80 Storm Water Drainage System, of the City's *Municipal Code*, which requires necessary permits, plans, plan checks, and inspections to reduce the effects of sedimentation and erosion. In addition, construction associated with future development projects would be required to have erosion control plans approved by the City of San Bernardino Department of Building and Safety, as well as Storm Water Pollution Prevention Plans (SWPPP). As part of these requirements, Best Management Practices (BMPs) would be

implemented during construction activities to reduce soil erosion to the maximum extent possible. Furthermore, all construction activities would be required to comply with SCAQMD Rule 403 regarding the control of fugitive dust. Compliance with the City's applicable building regulations regarding erosion control and SCAQMD Rule 403 would ensure that impacts related to soil erosion during construction phases of future development would be less than significant.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the General Plan and existing regulatory requirements are required.

Level of Significance After Mitigation: Not Applicable.

EXPANSIVE SOILS

- **DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD BE LOCATED ON EXPANSIVE SOILS CREATING POTENTIAL RISK TO LIFE OR PROPERTY.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: The City lies on a broad, gently sloping lowland that flanks the southwest margin of the San Bernardino Mountains. The lowland is underlain by alluvial sediments eroded from bedrock in the adjacent mountains and washed by rivers and creeks into the valley region where they have accumulated in layers of sand, silt, gravel, and clay.[36] Soils with a percentage of clay have the potential to expand when water is added and shrink when water is lost, resulting in what is called expansive soils. Expansive soils can result in damage to overlying structures and infrastructure. Future development projects (1,833 dwelling units and 6,200,590 square feet of non-residential development) associated with implementation of the proposed project would be required to comply with applicable building codes (i.e., City *Building Code*, *Uniform Building Code*, and *California Building Code*) and Mitigation Measures GEO-1 and GEO-2, which would reduce impacts regarding expansive soils to a less than significant level.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measures GEO-1 and GEO-2. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

[36] City of San Bernardino Final General Plan Update and Associated Specific Plans EIR, prepared by The Planning Center, dated September 30, 2005.

5.9.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS RELATED TO GEOLOGIC, SOILS, AND SEISMIC HAZARDS.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Although geologic and seismic hazard conditions occur regionally, the potential increased exposure of the human population to these hazards resulting from implementation of the proposed project would be specific to the City of San Bernardino. However, increased growth within the subregion, as a result of the proposed project and other projects, would contribute to the cumulative exposure of the regional population to seismic hazards. Unsafe geologic, soils, and seismic conditions exist throughout southern California and new development in such areas would be considered significant. These potential impacts are evaluated on a project-by-project basis in accordance with CEQA. If a specific site were determined to create a significant impact that could not be feasibly mitigated the site would not be appropriate for development. Development of cumulative projects would incrementally increase the number of people and structures potentially subject to a seismic event. However, such exposure would be minimized through strict engineering guidelines for development at each respective area. Future development projects would be subject to compliance with the City's *Building Code*, *California Building Code*, and *Uniform Building Code*. Additionally, mitigation would be incorporated on a project-by-project basis to reduce cumulative geology and soil impacts to a less than significant level.

Future development areas within the City of San Bernardino may exhibit constraints to development that would be addressed at the geotechnical engineering level. Individual development projects under the proposed project would undergo site-specific evaluation to determine threat and the cumulative threat of geologic and seismic hazards in the region. As concluded above, implementation of the proposed project would be less than significant with adherence to the *General Plan* goals and policies, compliance with the City's *Building Code*, *California Building Code*, and *Uniform Building Code*, and recommended mitigation measures. Therefore, implementation of the proposed project would not result in cumulatively considerable geology and seismic hazards impacts.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measures GEO-1 and GEO-2. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

5.9.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Geologic and seismic hazard impacts associated with implementation of the proposed project would be less than significant with compliance with the *General Plan* goals and policies and the recommended mitigation measures. Therefore, no significant unavoidable geologic and seismic hazards impacts would occur as a result of the proposed project.

5.9.7 SOURCES CITED

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SECTION 5.10
HAZARDS AND HAZARDOUS MATERIALS

5.10 HAZARDS AND HAZARDOUS MATERIALS

This section describes the means by which hazardous substances are regulated from a Federal, State and local perspective, and discusses potential adverse impacts to human health and the environment due to exposure of hazardous materials. Where significant impacts are identified, mitigation measures are provided to reduce these impacts to a less than significant level. For this EIR, the term "hazardous material" includes any material that, because of its quantity, concentration, or physical, chemical, or biological characteristics, poses a considerable present or potential hazard to human health or safety, or to the environment. It refers generally to hazardous chemicals, radioactive materials, and bio-hazardous materials. "Hazardous waste," a subset of hazardous material, is material that is to be abandoned, discarded, or recycled and includes chemicals, radioactive and bio-hazardous waste (including medical waste).

5.10.1 REGULATORY SETTING

Applicable Federal, State, and local regulatory agencies, policies, and law that apply to hazards and hazardous materials are discussed below.

FEDERAL AND STATE

The United States Environmental Protection Agency (U.S. EPA) and the California Department of Toxic Substance Control (DTSC) have developed and continue to update lists of hazardous wastes subject to regulation. Regulation of hazardous wastes is provided on both the State and Federal levels. In addition to the U.S. EPA and the DTSC, the Regional Water Quality Control Board (RWQCB), Los Angeles Region (Region 4), is the enforcing agency for the protection and restoration of water resources, including remediation of unauthorized releases of hazardous substances in soil and groundwater.

Department of Toxic Substances Control

The responsibility for implementation of Resource Conservation and Recovery Act (RCRA) was given to California EPA's Department of Toxic Substances Control (DTSC) in August 1992. The DTSC is also responsible for implementing and enforcing California's own hazardous waste laws, which are known collectively as the Hazardous Waste Control Law. Although similar to RCRA, the California Hazardous Waste Control Law and its associated regulations define hazardous waste more broadly and so regulate a larger number of chemicals. Hazardous wastes regulated by California but not by EPA are called "non-RCRA hazardous wastes."

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The "Unified Hazardous Waste and Hazardous Materials Management Regulatory Program" (Program) was created in 1993 by Senate Bill 1082 to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for environmental and emergency management programs. The Program is implemented at the local government level by Certified Unified Program Agencies (CUPA). The Program consolidates, coordinates, and makes consistent the following hazardous materials and hazardous waste programs (Program Elements):

- Hazardous Waste Generation (including onsite treatment under Tiered Permitting);
- Aboveground Petroleum Storage Tanks (only the Spill Prevention Control and Countermeasure Plan or "SPCC");
- Underground Storage Tanks (USTs);
- Hazardous Material Release Response Plans and Inventories;
- California Accidental Release Prevention Program (Cal ARP); and
- Uniform Fire Code Hazardous Material Management Plans and Inventories.

The San Bernardino County Fire Department is the CUPA for nearly the entire unincorporated and incorporated County, including the City.

Accidental Release Prevention Law

The State's Accidental Release Prevention Law provides for consistency with Federal laws (i.e., the Emergency Preparedness and Community Right-to-Know Act and the Clean Air Act) regarding accidental chemical releases and allows local oversight of both the State and Federal programs. State and Federal laws are similar in their requirements; however, the California threshold planning quantities for regulated substances are lower than the Federal quantities. Local agencies may set lower reporting thresholds or add additional chemicals to the program.

The Accidental Release Prevention Law is implemented by the CUPA and requires that any business, where the maximum quantity of a regulated substance exceeds the specified threshold quantity, register with the County as a manager of regulated substances and prepare a Risk Management Plan. A Risk Management Plan must contain an off-site consequence analysis, a five-year accident history, an accident prevention program, an emergency response program, and a certification of the truth and accuracy of the submitted information. Businesses submit their plans to the CUPA, which makes the plans available to emergency response personnel. The Business Plan must identify the type of business, location, emergency contacts, emergency procedures, mitigation plans, and chemical inventory at each location.

Transportation of Hazardous Materials/Wastes

Transportation of hazardous materials/wastes is regulated by California Code of Regulations (CCR) Title 26. The Federal Department of Transportation (DOT) is the primary regulatory authority for the interstate transport of hazardous materials. The DOT establishes regulations for safe handling procedures (i.e., packaging, marking, labeling and routing). The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) enforce Federal and State regulations and respond to hazardous materials transportation emergencies. Emergency responses are coordinated as necessary between Federal, State and local governmental authorities and private persons through a State mandated Emergency Management Plan.

Worker and Workplace Hazardous Materials Safety

Occupational safety standards exist to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of Occupational Safety and Health (Cal/OSHA) is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other

requirements, Cal/OSHA requires many businesses to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. The Hazard Communication Standard requires that workers be informed of the hazards associated with the materials they handle.

REGIONAL

The South Coast Air Quality Management District (SCAQMD) works with the California Air Resources Board (CARB) and is responsible for developing and implementing rules and regulations regarding air toxics on a local level. The SCAQMD establishes permitting requirements, inspects emission sources, and enforces measures through educational programs and/or fines. Refer to Section 5.5, Air Quality, for further discussion regarding toxic air emissions.

COUNTY OF SAN BERNARDINO

San Bernardino County Fire Department

The purpose of the Hazardous Materials Division of the San Bernardino County Fire Department (HMDFD) is to protect the health and safety of the public and the environment of the County by assuring that hazardous materials are properly handled and stored. The Division accomplishes this through inspection, emergency response, site remediation, and hazardous waste management services.

The HMDFD oversees the County's CUPA program, household hazardous waste disposal, waste management alternatives for businesses through the Conditionally Exempt Small Quantity Generator (CESQG) program, and provides 24-hour response to emergency incidents involving hazardous materials or wastes. The HMDFD also oversees the investigation and remediation of environmental contamination due to releases from underground storage tanks (USTs), hazardous waste containers, chemical processes, or the transportation of hazardous materials. Also, the HMDFD conducts investigations and takes enforcement action, as necessary, against anyone who disposes of hazardous waste illegally or otherwise manages hazardous materials or wastes in violation of Federal, State, or local laws and regulations.

CITY OF SAN BERNARDINO

City of San Bernardino Fire Department

The San Bernardino City Fire Department (SBFD) also has a Hazardous Materials Response Team specially trained and equipped to handle hazardous materials releases, which have adverse effects on lives, the environment, and property within the City. However, it should be noted that the SBFD defers CUPA responsibilities to the HMDFD.

City of San Bernardino General Plan

The *City of San Bernardino General Plan* (*General Plan*) Safety Element assesses natural and man-made hazards present in the community and includes policies to address those hazards. This element specifically addresses the way in which the City will prepare and respond to fire hazards, geologic, and seismic hazards, and flood hazards. The Safety Element provides background information related to each issue and identifies hazard locations within the City,

risk-reduction strategies, and hazard abatement measures that can ultimately be used by decision-makers in their review of projects. Policies also address ways to minimize any economic disruption and accelerate the City's recovery following a disaster. Refer to Section 5.9, Geology and Seismic Hazards, for a discussion of earth resources and geology.

The City's goals and policies for hazardous materials and uses are designed to ensure the protection of the public health, safety, and welfare, and environmental resources in the City. Planning practices emphasize waste reduction, recycling, proper management of hazardous materials, siting of facilities, and effective emergency response.

Hazardous Waste Management Plan

The State Department of Health Services requires permits for the use, storage or disposal of hazardous substances. The permit categories range from the use of solvents and flammable material in the ordinary repair of automobiles to the treatment or handling of hazardous wastes in large quantities over prolonged periods of time. Operations that involve the treatment of hazardous wastes or storage over long periods of time require the issuance of a special permit by the State Department of Health Services. As indicated, the County Hazardous Waste Management Plan (Chapter 17.05, Hazardous Waste Management Plan, of the Municipal Code) is refining permit criteria and standards that will vest the permit process to the State. There are several approved hazardous waste management companies offering managing services to other companies in the City for the treatment, disposal or storage of hazardous material. These companies have either received a permit or have been granted interim status by the State of California pending review of the facilities for compliance with Federal and State regulations.

5.10.2 ENVIRONMENTAL SETTING

Refer to Section 3.0, Project Description, for a detailed description of the seven Project Areas.

REPORTED REGULATORY PROPERTIES

Department of Toxic Substances Control

RBF searched the Project Area and surrounding vicinity on the EnviroStor Database. EnviroStor Database was developed by the DTSC to allow the public to search for properties regulated by the DTSC's Site Mitigation and Brownfields Reuse Program where extensive investigation and/or cleanup actions are planned or have been completed. RBF makes no claims as to the completeness or accuracy of the EnviroStor Database; our review of EnviroStor Database's findings can only be as current as their listings and may not represent all known or potential hazardous waste or contaminated sites. RBF searched all sites within EnviroStor Database in the Project Area. The following search resulted in 14 listed regulatory properties located within the boundaries of the Project Area; refer to *Table 5.10-1*, *DTSC Identified Regulatory Sites Within the Project Area*, for a detailed listing of on-site properties listed in the EnviroStor Database.

Table 5.10-1
DTSC Identified Regulatory Sites Within The Project Area

Address	Regulatory Site	Site Information	Current Potential Environmental Condition
Jones Elementary School Seventh Street / F Street	School Cleanup	Investigations regarding potential soil contamination as a result of past agricultural uses, indicating the potential use of pesticides or herbicides. The soil may also have been impacted with petroleum products associated with the gas and oil shed in the area. A school cleanup Agreement was completed on October 29, 2003. Site certification was completed on December 20, 2004. A letter stating that no further action is required on June 28, 2007.	NO
Lincoln II South Elementary School 7th Street / Vine Street	School Cleanup	The Site consists of approximately 75 contiguous parcels. Historical information indicate residential surroundings as early as 1894 and a railroad track existed along the eastern boundary from 1913 to 1977. A gas station was located at the corner of West 7th Street and North Mountain View and a motorcycle repair shop located on the corner of West 8th Street and North Sierra Way. The San Bernardino County maintenance yard and garage with a historical underground storage tank leak is located directly adjacent to the Site. A tractor repair facility, and a water bottling facility were located adjacent east of the Site from as early as 1950 until 1969. The DTSC approved 1.2 acres of the approximate 15 acre proposed Lincoln II property with a no further action determination on October 1, 2009.	YES
So Cal Gas / San Bernardino 1 (Arrowhead) NW Corner of 2nd and Arrowhead Street	Voluntary Cleanup Site	This is a one acre site located in the civic center area. The site is currently occupied by office buildings and parking lots. The site was historically a manufactured gas plant. There exists no potential for direct exposure to soils on the site. No visible residues, odors or structures from the former MGP remain. The DTSC approved the Removal Action Completion Report on June 8, 2009. The site is proposed to include a Land Use Restriction and certification in 2011	YES
780 East Gilbert Street	School Investigation Site	The site has been historically residential, potential agricultural (row crops), and a county medical facility. No further action was received by the DTSC on April 1, 2003.	NO

Table 5.10-1 (continued)
DTSC Identified Regulatory Sites Within The Project Area

Address	Regulatory Site	Site Information	Current Potential Environmental Condition
City of San Bernardino Economic Development Agency (proposed Transit Village Core Project Area), south of Rialto Avenue and west of E Street	Evaluation Site	On the north boundary of the site lays the Atchison Topeka & Santa Fe railroad. It is thought that the site was used by the railroad as a maintenance yard in the late 1960s and 1970's. Since 1969, this railway was the main track. A field review has identified several areas of the site where old train tracks are buried. There is some speculation that since the property to the north of this site was used for electric cars, this site might have also been used in this capacity. There have been no previous environmental investigations done at the site, however, the environmental issues that surround this property make the site vulnerable to some of the same contaminants that have been found on adjacent properties. To the west of this, environmental conditions exist at the Southwest Metals site. In addition, to the west of the site there are three leaking USTs listed by the RWQCB. In 2000 and northwest of the site, lead contamination was discovered during grading activities. Finally, on the property directly north of the site, Phase-1 activities located possible oil stained areas and potential PCBs. The site is the future location of the Transit Village Core of the City's downtown Transit Center for the City's Transit-Oriented Development (TOD). With the development of the City's TOD, the City and Agency are partnering with San Bernardino Associated Governments (SANBAG) and Omnitrans to develop the strategy to implement this crucial redevelopment project. Within the City's TOD, the planning and funding of various transportation projects will take place. Services being requested are the preparation of necessary workplans to collect soil, soil gas, and groundwater samples to test for metals, petroleum hydrocarbons, PCBs, chlorinated solvents, and VOCs in soil, soil gas, and groundwater.	YES
655 W. Rialto Avenue	Evaluation Site	This site has been referred to the local agency as of March 27, 2000.	Unknown

Table 5.10-1 (continued)
DTSC Identified Regulatory Sites Within The Project Area

Address	Regulatory Site	Site Information	Current Potential Environmental Condition
119 South Arrowhead Avenue	Voluntary Cleanup Agreement Land Use Restrictions	The Hanford Foundry Company Site (Site) was owned and occupied by the Hanford Family from 1892 to 1986. The foundry produced commercial pumps, and cement and oil tool castings using steel, stainless steel or high temperature alloys. Sand and silica were used as molds for casting the metal products. Foundry operations generated wastes including spent sand and silica. Information regarding onsite waste-handling practices is unknown. Prior to 1986, a laboratory, a steel foundry with a sand-mixing area, a 1,000 gallon underground fuel tank, a transformer, an office building, sand bins, a scrap storage area and two buildings of unknown operations were located on the Site. In 1986, all onsite structures were demolished and all equipment was removed from the site. In May of 1982, U.S. EPA conducted a Site Inspection. The purpose of the PA and SI was to review existing information on the site and its environs to assess the threat(s), if any, posed to public health, welfare, or the environment, and to determine if further action under CERCLA/SARA is warranted. After reviewing the PA and SI, EPA decided that further investigation of the foundry would be necessary. U.S. EPA then used the Hazard Ranking System (HRS) criteria to assess the relative threat associated with the actual or potential releases of hazardous substances at the site. In 1983, the DTSC conducted a drive-by inspection of the site and documented piles of waste material on site east of the foundry and existing buildings. In 1987, the Hanford Foundries Trust hired an environmental consultant, CHJ, Inc., to sample onsite soils prior to selling the property. Analytical results indicated the presence of various metals in onsite surface soils. In 1988, a second DTSC drive-by inspection documented that the site was a vacant lot. In October 1989, DTSC completed a Preliminary Assessment of the site for U.S. EPA. Analytical results of onsite soil and groundwater samples collected in 1991 during the SI, and soil samples collected during the ESI in March 1995 indicated the presence of chromium and nickel. DTSC became the lead agency for the Hanford Foundry site in July 2004.	YES

Table 5.10-1 (continued)
DTSC Identified Regulatory Sites Within The Project Area

Address	Regulatory Site	Site Information	Current Potential Environmental Condition
		Responsible parties entered a Voluntary Cleanup Agreement with DTSC and currently, a thorough Site Investigation is under way. A Covenant with listed land use restrictions was recorded on February 23, 2007. Also, the DTSC issued a no further action required letter, dated February 28, 2007, provided that the use of the site does not change from commercial/industrial, and the site is not used for any of the sensitive uses identified in the Land Use Covenant.	
Southwest Metal Company 740 Congress Street	Evaluation Site	This site has undergone site screening and has been referred to the EPA as of August 24, 2007.	Unknown
Tri-City Community Day School Site Stoddard Avenue / D Street	School Investigation Site	This property has undergone school site investigations per the DTSC. A no further action letter has been granted by the DTSC on September 27, 2005.	NO
Trojan Plating Co. #1 268 South Mountain View	Evaluation	The DTSC is requiring that this site undergo further evaluation as of August 31, 1995. A Preliminary Assessment/ Site Inspection Report (PA/SI) was completed on June 14, 2001. Further investigation is required.	YES
San Bernardino Eng. Sub-Depot	Military Evaluation Site	The DTSC is requiring that this site undergo further evaluation as of July 1, 2005.	YES
Benedict Properties 255 Benedict Road	Evaluation Site	This site has been referred to the local agency as of November 1, 2001.	Unknown
Benedict Properties 205 Benedict Road	Evaluation Site	This site has been referred to the local agency as of October 25, 2001.	Unknown
Benedict Properties 101 Benedict Road	Evaluation Site	This site has been referred to the local agency as of October 25, 2001.	Unknown
Source: Department of Toxic Substances Control, EnviroStor Database, http://www.envirostor.dtsc.ca.gov/public/, accessed November 23, 2009.			

GEOTRACKER

In addition to the EnviroStor Database mentioned above, RBF searched the Project Area and surrounding vicinity on GeoTracker. GeoTracker was developed pursuant to a mandate by the California State Legislature to investigate the feasibility of establishing a statewide Geographic Information System (GIS) for leaking underground fuel tank (LUFT) sites and is maintained by the State Water Resources Control Board (SWRCB). RBF makes no claims as to the completeness or accuracy of GeoTracker; our review of GeoTracker's findings can only be as

current as their listings and may not represent all known or potential hazardous waste or contaminated sites. According to the GeoTracker database search, over 50 regulatory sites have reported LUFT properties that have releases substances to the soil and/or groundwater, which are located within the boundaries of the Project Area.

TRANSPORT OF HAZARDOUS MATERIALS/WASTE

Transportation of hazardous materials/wastes is regulated by *California Code of Regulations* (*CCR*) *Title 26*. The Federal Department of Transportation (DOT) is the primary regulatory authority for the interstate transport of hazardous materials. The DOT establishes regulations for safe handling procedures (i.e., packaging, marking, labeling and routing). The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) enforce Federal and State regulations and respond to hazardous materials transportation emergencies. Emergency responses are coordinated as necessary between Federal, State and local governmental authorities and private persons through a State mandated *Emergency Management Plan*.

Major transportation routes within the City include surface streets, railroads, and freeways. Major surface streets within Project Area include Waterman Avenue, Arrowhead Avenue (north of 5th Street), and Sierra Way. Freeways within the Project Area include I-10 Freeway, I-210 Freeway, and I-215/91 Freeways.

FIXED FACILITY

Many businesses within the Project Area handle, transport, and/or store hazardous materials. Also, several commercial and retail businesses in the Project Area have small amounts of hazardous materials. Many smaller chemical users such as school laboratories and stores maintain hazardous materials on-site. These hazardous materials may threaten human health or the environment. Potential hazards are found in materials that are toxic, flammable, corrosive, or reactive. It should be noted that existing Federal, State, and local laws regulate the use, transport, disposal, and storage of hazardous materials within the City.

RAILROAD OPERATIONS

Extensive freight rail service is provided within the City by Burlington Northern Santa Fe (BNSF) and Union Pacific (UP) railroads; in fact, freight operators are the largest users of San Bernardino's rail facilities. Rail service provided by UP on its main line through the City is expected to grow significantly in the future due to the increased international trade at the Ports of Long Beach and Los Angeles, the San Bernardino International Airport, as well as population growth in southern California. BNSF operates intermodal, carload freight, and bulk unit trains through the City.

Both Amtrak and Metrolink provide long-distance passenger train service from the Historic Depot in San Bernardino. Amtrak has provided local, interstate, and transcontinental service at San Bernardino since Amtrak's inception in 1971. Commuter Rail service is provided by the Southern California Regional Rail Authority (SCRRA), which operates the Metrolink train service. The City of San Bernardino is served by the San Bernardino Line, which is Metrolink's busiest line, with a station located at the historic Santa Fe Depot.

AIRPORTS

The San Bernardino International Airport (SBIA) is located in the southeastern edge of the City. The SBIA is specifically located approximately 0.5 miles from the Southeast Industrial Park Redevelopment Project Area. This Project Area is currently occupied by manufacturing- and distribution-related warehouse uses. Also, according to the California Division of Aeronautics, there are five helipads in the City's planning area. The helipads are private-use facilities and are situated at the National Orange Show and the Tri-City area.

CONTAMINATED GROUNDWATER CONDITIONS

As discussed above, there are over 50 regulatory sites (within the boundaries of the Project Area, that have reported leaking underground tanks (LUSTs/LUFTs), which may have impacted the groundwater underlying these sites. Also, contaminated groundwater within the Project Area may have resulted from off-site facilities as well. The following off-site facilities are anticipated to have impacted groundwater underlying the Project Area.

San Bernardino International Airport (Former Norton Air Force Base)

According to the *General Plan EIR*, the San Bernardino International Airport [SBIA] (former Norton Air Force Base) is a designated superfund site located within the eastern portion of the City of San Bernardino. The 2,103-acre site began operations in 1942 and served as a major overhaul center for jet engines and the general repair of aircraft. The site was primarily used by the Military Airlift Command for the movement of troops and military cargo among other Air Force bases. A large number of Air Force contractors were present on the base serving in various data collection and other administrative functions.

In 1987, the EPA added this site to the National Priorities List (NPL) noting soil contaminants that included polychlorinated biphenyls (PCB), trichloroethylene (TCE), petroleum hydrocarbons, lead and other toxic metals, and polycyclic aromatic hydrocarbons. In 1994, the base was closed under the Base Realignment and Closure Act. Past military hazardous waste management practices contributed to the prior levels of contamination that existed throughout the base. The practices included both a domestic and industrial waste landfill, which included the disposal of various waste products and other unspecified materials. Industrial waste water disposal lines traversed from the Air Force flight line to a waste water treatment plant located immediately north of the Central Avenue extension for the disposal of waste oils, solvents, and paint residues that were not otherwise placed into landfills.

The contaminated groundwater plume beneath the site initially extended 2.5 miles long and contaminated 100,000 acre-feet of groundwater. Groundwater contamination has potentially affected several municipal drinking water wells. In November 1986, the RWQCB issued a Cleanup and Abatement Order requiring the Air Force to clean up the site. The first phase of this cleanup addressed the Industrial Waste Water Treatment Plant Sludge Drying Beds on-site. Since then, more than 22 clean up areas have been identified on-site. Due to its effectiveness, the Air Force has ceased operations of the groundwater pump and treatment system and only two actions are required at this time. The first is to continue monitoring groundwater on-site and off-site to ensure that contaminant levels do not exceed the Maximum Contaminant Level (MCL) established for drinking water. The second is related to Site 19, which has been identified with the presence of PCBs within the top six inches of soil. Since 1966 this area has been covered

by 20-24 inches of concrete as part of the taxi/ runway for the Airport. Keeping this concrete cap in place would protect human health and the environment from exposure to this substance. Under federal law, the Air Force is required to provide a five year update on additional actions and findings associated with base clean up and monitoring. It is expected that the next review would be completed sometime after 2010. Additional information outlining the cleanup activities is provided in Appendix H.

Bunker Hill Sub-Basin Groundwater Contamination

Based on the *General Plan EIR*, the San Bernardino Bunker Hill Sub-basin in the Upper Santa Ana Valley Groundwater Basin, which is bounded by the San Gabriel Mountains to the north and the San Bernardino Mountains to the east, shows contamination from trichloroethylene (TCE) and tetrachloroethene (PCE) above acceptable California State Action levels of five parts per billion (ppb) for TCE and four ppb for PCE (also known as perchloroethylene or PERC). Nitrates have also been identified at the site in concentrations above State action levels for nitrates of 45 parts per million (ppm).

According to the DTSC's EnviroStor Database, this area of groundwater contamination consists of approximately 15 square miles in the Bunker Hill Groundwater Basin in San Bernardino County. The site includes areas within the following zip codes: 92401, 92404, 92405, 92407, 92410, and 92411. Of these zip codes only 92401 is located within the Project Area. In the past four years, the San Bernardino Municipal Water District has removed fourteen domestic supply wells from production because of TCE and PCE contamination. There are levels of TCE and PCE in domestic water wells above the State health-based action level for drinking water at this site.

TCE was a degreaser used in large quantities for commercial, industrial and aerospace applications in the area. PCE is a similar degreaser and dry cleaning compound that was also commonly used by local businesses. Potential exposure to contaminants is possible through withdrawal of groundwater through domestic water wells. Another potential route of exposure exists through air emissions resulting from the stripping towers. Possible receptors include over 200,000 local residents and downgradient cities. In November 1986, the DTSC made an Imminent and Substantial Endangerment Determination at the site. DTSC entered into an agreement with the City of San Bernardino to design and construct three treatment systems in an effort to retard migration of underground contaminants. These three systems are now on line, treating up to 30 million gallons of groundwater per day.

Newmark Groundwater Contamination

According to the *General Plan EIR*, the Newmark Groundwater Contamination site underlies portion of the City with two groundwater plumes on either side of Shandin Hills. Newmark Plume area stretches to 5 miles on the east side of Shandin Hills and on the west side lies the Muscoy Plume area, extending for 4 miles north. Contaminants found in these plumes include chlorinated solvents, PCE and TCE, resulting in the closing of 20 water supply wells within a 6-mile radius. The Newmark Groundwater Contamination Site was listed on the NPL in 1989. The City Municipal Water Department under contract to the U.S. EPA, brought 12 of the wells back into operation by installing air stripping towers on eight wells and carbon filtration systems on the other four. For the Newmark Plume Area, a remedy was chosen in 1993 to pump and treat about 18 million gallons of contaminated water per day. This would prevent additional

contaminants from entering this part of the valley. The Muscoy Plume Area was dividend into two projects: the Muscoy Plume that would control the spread of contamination into clean area, and the Source Project that would address final cleanup of the source of contamination. The water from both plumes would be treated by conventional activated carbon adsorption technology to meet all drinking water standards. The treated water will be delivered to the local municipal water departments, which will bear the majority of the operating costs. While no immediate actions were required at the Newmark Groundwater Contamination site, the San Bernardino Municipal Water Department has constructed and operated four wellhead treatment systems to ensure the safety of the public water supply.

CLANDESTINE DUMPING

Clandestine dumping of toxic materials and hazardous materials/waste on public or private property is a criminal act due to the health and safety threat it poses. As the costs and restrictions increase for legitimate hazardous waste disposal sites, it is anticipated that illegal dumping of hazardous materials would increase proportionately.

LANDFILLS

Landfills can have adverse impacts on surrounding properties, the ground, and groundwater below the landfill. The concern from these facilities is related to the kind of materials disposed of in them, which can consist of both non-hazardous (class III), hazardous waste (class I) or a combination of both (class II).

Based on the GeoTracker Database Search, three land disposal sites have been noted within the City. Two disposal sites have been reported within the boundaries of the Project Area and one site is reported adjoining the Project Area. The West Bank Yard (Santa Fe Railway located at 740 Carnegie) and the Soil Treatment facility (located both at 1880 E. Riverview Drive and Trippecanoe Avenue, north of San Bernardino Road and west of Riverview Drive) are reported within the southern Tri-City Area and northeastern portion of the Southeast Industrial Park Area, respectively. The West Bank Yard is a reported land disposal site that is currently undergoing site clean up activities. The Soil Treatment facility is reported as a land disposal site that is listed as case closed by the RWQCB. The reported off-site Brine land disposal site is located adjoining the western portion of the Southeast Industrial Park Area (at 399 Chandler Place) and is currently closed, but undergoing site clean up activities.

HOUSEHOLD HAZARDOUS WASTE

There are several common household items that are considered hazardous including medications, paint, motor oil, antifreeze, auto batteries, lawn care products, pest control products, drain cleaners, pool care products such as chlorine and acids, and household cleaners. These materials need to be used, stored, and disposed of in a safe and proper manner. Currently, City residents may take these household hazardous waste to the San Bernardino International Airport and Trade Center (2824 East W Street, Building 302) to properly dispose of household hazardous materials.

5.10.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of this EIR. The Initial Study Checklist includes questions relating to hazards and hazardous materials. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school (refer to Section 8.0, Effects Found Not To Be Significant).
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
- For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (refer to Section 8.0, Effects Found Not To Be Significant).
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands (refer to Section 8.0, Effects Found Not To Be Significant).

Based on these significance standards, the effects of the proposed project have been categorized as either “no impact”, a “less than significant impact”, or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a “significant unavoidable impact.”

5.10.4 PROJECT IMPACTS AND MITIGATION MEASURES

HAZARDOUS MATERIALS USE, GENERATION, EMISSION, AND TRANSPORT

- **DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN AN INCREASED RISK OF UPSET ASSOCIATED WITH THE ROUTINE USE, GENERATION, AND TRANSPORT OF HAZARDOUS MATERIALS OR EMIT HAZARDOUS EMISSIONS OR HANDLE HAZARDOUS OR ACUTELY HAZARDOUS MATERIALS, SUBSTANCES, OR WASTE, WHICH MAY POTENTIALLY POSE A HEALTH OR SAFETY HAZARD.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: The proposed project's primary purpose is to alleviate conditions of blight within the Project Area. The proposed project would not modify existing land uses. Land uses within the Project Area may include residential, commercial, and public facility land uses that would use limited amounts of hazardous materials, such as dry cleaners, gas stations, and chemical fertilizers/pesticides applied to landscaping and park areas. Such use of hazardous materials, although not expected to pose a risk to people residing or working in the area, could result in potentially significant impacts.

Also, the Project Area would include industrial uses that may utilize various chemicals and hazardous materials. These uses may routinely handle, store, and/or transport hazardous substances, as well as generate hazardous waste. Such substances can range from common automobile oil and household pesticides to chlorine, dry-cleaning solutions, ammonia, or substances used in commercial and industrial operations. However, it should be noted that these uses already exist within the Project Area.

Chemical storage of any kind over specific quantities must be publicly reported in accordance with California Proposition 65. Business Plans for businesses storing substances above minimum reporting requirements must be prepared and kept on file with the HMDFD. The State's Accidental Release Prevention Law, implemented by the HMDFD, requires that any business, where the maximum quantity of a regulated substance exceeds the specified threshold quantity, register with the County as a manager of regulated substances and prepare a Risk Management Plan. A Risk Management Plan must contain an off-site consequence analysis, a five-year accident history, an accident prevention program, an emergency response program, and a certification of the truth and accuracy of the submitted information. Businesses submit their plans to the HMDFD, which makes the plans available to emergency response personnel. The Business Plan must identify the type of business, location, emergency contacts, emergency procedures, mitigation plans, and chemical inventory at each location.

Chemicals and wastes stored in aboveground or underground storage tanks would follow guidelines mandated by the RWQCB and HMDFD. Aboveground tanks storing hazardous chemicals would have secondary containment to collect fluids that are accidentally released. Underground storage tanks and connecting piping would be double-walled and would have monitoring devices with alarms installed to constantly monitor for unauthorized releases in accordance with Federal, State, and local standards.

New businesses that locate near residential areas or other sensitive uses may expose these sensitive uses to greater risk of exposure to hazardous materials, wastes, or emissions. Methods such as a buffer in the form of a major street, channel, or intervening land use can be used to separate residential areas from industrial areas. While the risk of exposure to hazardous materials cannot be eliminated, measures can be implemented to maintain risk to acceptable levels. Compliance with measures established by Federal, State, and local regulatory agencies, along with *General Plan* goals and policies, is considered adequate to offset the negative effects related to the use, storage, emission, and transport of hazardous materials at future development sites; thus impacts would be less than significant in this regard.

General Plan Goals and Policies:

SAFETY ELEMENT

Goal 10.2 **Promote proper operations of hazardous waste facilities and ensure regulations applicable to these facilities are enforced.**

Policy 10.2.1 Require the proper handling, treatment, movement, and disposal of hazardous materials and hazardous waste.

Policy 10.2.2 Encourage businesses to utilize practices and technologies that will reduce the generation of hazardous wastes at the source.

Policy 10.2.3 Implement federal, state, and local regulations for the disposal, handling, and storage of hazardous materials.

Policy 10.2.4 Work with the Department of Environmental Health Services to promote waste minimization, recycling, and use of best available technology in City businesses.

Policy 10.2.5 Participate in the process of selecting routes that are the most acceptable for the safe transportation of hazardous waste material within the City limits. Streets with high concentrations of people, such as the downtown, or with sensitive facilities, such as schools and parks, should be avoided to the maximum extent possible.

Policy 10.3.1 Conduct educational programs to educate the public about the proper handling and disposal of household hazardous wastes.

Policy 10.3.2 Enforce the proper disposal of Household Hazardous Wastes.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the General Plan are required.

Level of Significance After Mitigation: Not Applicable.

ACCIDENTAL RELEASE OF HAZARDOUS MATERIALS

- **ACCIDENTAL RELEASE OF HAZARDOUS MATERIALS COULD RESULT IN A RISK TO THE PUBLIC OR ENVIRONMENT.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: The proposed project would involve the implementation of several projects and programs that seek to mitigate environmental threats to public health and safety, and transform contaminated, underutilized properties, otherwise known as "brownfields," into productive assets of the community.

In 2008, the Redevelopment Agency (Agency) was selected to receive two separate grants from the U.S. EPA for Communitywide Brownfields Assessments to inventory brownfield sites and conduct Phase I and Phase II Environmental Site Assessments on priority sites with high revitalization potential. These grants can ideally be used by redevelopment agencies as "seed money" to create comprehensive, proactive brownfield revitalization programs. The Agency also possesses unique powers under the Polanco Redevelopment Act (CRL Sections 33459-33459.8) to transfer and mitigate legal and financial liabilities that would otherwise deter a property owner or developer from seeking to better utilize brownfield sites. Redevelopment activities under this project/program, include community outreach, grant funding, and implementation of the sbX Bus Rapid Transit Project, an interagency effort with Omnitrans, the regional transportation authority, to implement a bus rapid transit system that would traverse and interconnect 15.7 miles of the City, many portions of which include right-of-ways containing environmental pollutants regulated by Federal and State oversight agencies. The Agency estimates $3 million in project costs for environmental remediation and brownfields revitalization through the life of the proposed project. Additionally, with implementation of Strategy No. All-63, the Agency would continue to develop and implement a comprehensive Brownfields Revitalization Program that seeks and leverages funding for the assessment, remediation, and revitalization of environmentally contaminated properties throughout the Project Area.

Overall, long-term operations of development associated with implementation of the proposed project would result in a decreased threat to the health and safety of residents, as the proposed redevelopment activities would be required to improve the risk to public health through implementation of Federal, State, and local laws pertaining to hazardous materials, in particular use of the Polanco Act, *California Health & Safety Code* Section 33459, *et seq*.. However, future development in the Project Area may result in accidental releases to the public or environment due to short-term construction/rehabilitation activities or long-term operations.

Short-Term Construction/Rehabilitation Activities

Demolition, rehabilitation, and/or construction activities may result in an accidental release of hazardous materials that may result in a public health risk. Known hazardous materials that have reported soil and groundwater contamination exist within the Project Area. Based on both the DTSC's and RWQCB's regulatory databases, multiple regulatory incidences have been reported on-site via a Federal, State, and/or local regulatory database. Many of these incidences pertaining to hazardous materials have not yet received a case closure letter and/or a no further action required designation from the appropriate regulatory agency. These reported hazardous materials, as well as other unknown hazardous materials, may be encountered

during demolition, rehabilitation, and/or construction activities. With implementation of the Mitigation Measure HAZ-1, a formal Phase I Environmental Site Assessment (ESA) would be prepared on a project-by-project basis in accordance with ASTM Standard 1527-05 or the Standards and Practices for All Appropriate Inquiry (AAI), prior to any land acquisition and/or construction activities within the Project Area. The Phase I ESA would identify specific Recognized Environmental Conditions (RECs), which may require further sampling/remedial activities by a qualified hazardous materials consultant with Phase II/Site Characterization experience prior to land acquisition and/or construction.

Also, on-site structures may contain asbestos-containing materials (ACMs) and/or lead-based paints (LBPs). Pursuant to Cal OSHA regulations and the South Coast Air Quality Management District (SCAQMD) Rule 1403, an asbestos survey must be conducted by an Asbestos Hazard Emergency Response Act (AHERA) and Cal OSHA certified building inspector to determine the levels of asbestos in structures (HAZ-2). Additionally, LBPs may be present, as a result of the age of the on-site structures. On-site LBPs would also be required to be disposed of to an appropriate permitted disposal facility should renovation or demolition occur (HAZ-3).

While implementation of HAZ-1 through HAZ-3 would reduce potential impacts from site disturbance activities, accidental conditions may arise during construction of a future development project. If unknown wastes or suspect materials are discovered during construction by the contractor, which he/she believes may involve hazardous waste/materials, the contractor would be required to complete the following (HAZ-4):

- Immediately stop work in the vicinity of the suspected contaminant, removing workers and the public from the area;
- Notify the Project Engineer of the implementing agency;
- Secure the areas as directed by the Project Engineer; and
- Notify the implementing agency's Hazardous Waste/Materials Coordinator. The Hazardous Waste/Materials Coordinator would advise the responsible party of further actions that would be taken, if required.

With implementation of Mitigation Measures HAZ-1 through HAZ-4, potential accidental release during construction would be minimized to a less than significant level.

Long-Term Operations

Typical incidents that could result in accidental release of hazardous materials include leaking underground storage tanks, accidents during transport causing a "spill" of hazardous materials and/or natural disasters causing the unauthorized release of a substance. If not cleaned up immediately and completely, these and other types of incidents could cause contamination of soil, surface water and groundwater, in addition to any toxic fumes that might be generated. Depending on the nature and extent of the contamination, groundwater supplies could become unsuitable for use as a domestic water source. Human exposure to contaminated soil or water could have potential health effects depending on a variety of factors, including the nature of the contaminant and the degree of exposure.

Accidental releases would most likely occur in the commercial and industrial areas and along transport routes leading to and from these areas. The City's street setback requirements minimize the direct damage that may occur from transportation-related hazardous waste spills. Also, Hazardous Material Release Response Plans and Inventories would be required. The HMDFD oversees the submittal of Business Emergency Plans, which are intended to mitigate potential release of hazardous substances and minimize potential harm or damage. Oversight by the appropriate agencies and compliance with applicable regulations are considered adequate to offset the negative effects related to the accidental release of hazardous materials on a future development site.

Related to the issue of groundwater protection is the issue of minimizing the effects of storm water and urban runoff pollution (SWURP). Not only does storm water runoff affect local groundwater, it has the potential to impact neighboring jurisdictions and the region. Unlike sewage, which goes to treatment plants, urban runoff flows untreated through the storm drain system. Anything thrown, swept or poured into the street, gutter or a catch basin (the curbside openings that lead into the storm drain system) can flow directly into our waterways. The problem is particularly acute during heavy rains, but can be a problem at any time due to the improper disposal of products associated with home, garden, and automotive maintenance. Water pollution is of national importance and the federal Clean Water Act established the National Pollution Discharge Elimination System (NPDES) permit program to address the problem. The Clean Water Act requires that cities "effectively prohibit non-stormwater discharges into the storm sewers" and "require controls to reduce the discharge of pollutants to the maximum extent practicable." Cities are now required to obtain NPDES permits to discharge their storm water into the storm drains and implement Best Management Practices (BMPs) on new construction in order to prevent illegal discharges to storm drains and runoff from construction sites, restaurants, outdoor storage sites, and industrial areas.

Compliance with measures established by Federal, State, and local regulatory agencies, along with General Plan goals and policies, is considered adequate to offset the negative effects related to the reasonably foreseeable upset and accident conditions involving the release of hazardous materials in the Project Area, and reduce potential impacts to a less than significant level.

General Plan Goals and Policies:

LAND USE ELEMENT

Goal 2.8 **Promote development that integrates with and minimizes impacts on surrounding land uses.**

Policy 2.8.4 Control the development of industrial and other uses that use, store, produce, or transport toxics, air emissions, and other pollutants.

SAFETY ELEMENT

Goal 10.4 **Minimize the threat of surface and subsurface water contamination and promote restoration of healthful groundwater resources.**

Policy 10.4.1 Promote integrated inter-agency review and participation in water resource evaluation and mitigation programs.

Policy 10.4.2 Protect surface water and groundwater from contamination.

Policy 10.4.3 Eliminate or remediate old sources of water contamination generated by hazardous materials and uses.

Policy 10.4.4 Develop programs and incentives for prevention of groundwater contamination and clean up of known contaminated sites.

Policy 10.5.1 Ensure compliance with the Federal Clean Water Act requirements for National Pollutant Discharge Elimination System (NPDES) permits, including developing and requiring the development of Water Quality Management Plans for all new development and significant redevelopment in the City. (LU-1)

Policy 10.5.2 Continue to implement an urban runoff reduction program consistent with regional and federal requirements, which includes requiring and encouraging the following:

- Increase permeable areas to allow more percolation of runoff into the ground;
- Use natural drainage, detention ponds or infiltration pits to collect runoff;
- Divert and catch runoff using swales, berms, green strip filters, gravel beds and French drains;
- Install rain gutters and orient them towards permeable surfaces;
- Construct property grades to divert flow to permeable areas;
- Use subsurface areas for storm runoff either for reuse or to enable release of runoff at predetermined times or rates to minimize peak discharge into storm drains;
- Use porous materials, wherever possible, for construction of driveways, walkways and parking lots; and
- Divert runoff away from material and waste storage areas and pollution-laden surfaces such as parking lots. (LU-1)

Policy 10.5.3 Cooperate with surrounding jurisdictions and the County to provide adequate storm drainage facilities.

Policy 10.5.4 Require new development and significant redevelopment to utilize site preparation, grading and foundation designs that provide erosion control to prevent sedimentation and contamination of waterways. (LU-1)

Policy 10.5.5 Ensure compliance with the requirements for Storm Water Pollution Prevention Plans or Water Quality Management Plans for all new development or construction activities.

Policy 10.5.6 Coordinate with appropriate federal, state, and local resource agencies on development projects and construction activities affecting waterways and drainages.

Mitigation Measures:

HAZ-1 A formal Phase I Environmental Site Assessment (ESA) shall be prepared on a project-by-project basis in accordance with ASTM Standard 1527-05 or the Standards and Practices for All Appropriate Inquiry (AAI), prior to any land acquisition and/or construction activities. The Phase I ESA would identify specific Recognized Environmental Conditions (RECs), which may require further sampling/remedial activities by a qualified hazardous materials consultant with Phase II/Site Characterization experience prior to land acquisition, demolition, and/or construction.

HAZ-2 Prior to demolition and/or rehabilitation activities, an asbestos survey shall be conducted by an Asbestos Hazard Emergency Response Act (AHERA) and Cal OSHA certified building inspector to determine the presence or absence of asbestos containing-materials (ACMs). If ACMs are located, abatement of asbestos shall be completed prior to any activities that would disturb ACMs or create an airborne asbestos hazard. Asbestos removal shall be performed by a State certified asbestos containment contractor in accordance with the South Coast Air Quality Management District (SCAQMD) Rule 1403.

HAZ-3 If paint is separated from building materials (chemically or physically) during demolition of the structures, the paint waste shall be evaluated independently from the building material by a qualified environmental professional. If lead-based paint is found, abatement shall be completed by a qualified lead specialist prior to any activities that would create lead dust or fume hazard. Lead-based paint removal and disposal shall be performed in accordance with California Code of Regulation Title 8, Section 1532.1, which specifies exposure limits, exposure monitoring and respiratory protection, and mandates good worker practices by workers exposed to lead. Contractors performing lead-based paint removal shall provide evidence of abatement activities to the City Engineer.

HAZ-4 If unknown wastes or suspect materials are discovered during construction by the contractor that are believed to involve hazardous waste or materials, the contractor shall comply with the following:

- Immediately cease work in the vicinity of the suspected contaminant, and remove workers and the public from the area;
- Notify the City's Engineer;

- Secure the area as directed by the Project Engineer; and
- Notify the implementing agency's Hazardous Waste/Materials Coordinator. The Hazardous Waste/Materials Coordinator shall advise the responsible party of further actions that shall be taken, if required.

Level of Significance After Mitigation: Less Than Significant Impact.

RAILROAD USES

◆ **DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN AN INCREASED HAZARD TO THE PUBLIC OR THE ENVIRONMENT THROUGH THE DISTURBANCE OF EXISTING AND/OR PAST RAILROAD USES.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Extensive freight rail service is provided within the City by the BNSF and UP railroads. Both Amtrak and Metrolink provide long-distance passenger train service from the Historic Depot. Active and inactive railroad beds frequently have concentrations of petroleum products and lead elevated above natural background conditions. Petroleum product concentrations and lead concentrations are derived from drippings from rail vehicles and flaked paint, respectively. Wooden railroad ties may contain preservatives (i.e., creosote), some of which may contain hazardous constituents. Track switch locations often have elevated levels of petroleum hydrocarbons. Inorganic and organic herbicides, along with diesel fuel, may have been used for vegetation control.

Due to the existing and past railroad uses, the presence of gasoline, diesel, and/or creosote underneath the concrete and surrounding the railroad areas is likely. Also, development associated with past railroad yards may also result in disturbance of contaminated areas. With implementation of Mitigation Measure HAZ-1, a formal Phase I Environmental Site Assessment (ESA) would be prepared on a project-by-project basis within the Project Area. The Phase I ESA would identify specific Recognized Environmental Conditions (RECs) (including those resulting from current and past railroad facilities/uses), which may require further sampling/remedial activities by a qualified hazardous materials consultant with Phase II/Site Characterization experience. With implementation of Mitigation Measure HAZ-1, impacts would be reduced to less than significant levels.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measure HAZ-1. No additional mitigation measures are required.

Level of Significance After Analysis and Mitigation: Less Than Significant Impact.

LANDFILLS

- **DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN AN INCREASED HAZARD TO THE PUBLIC OR THE ENVIRONMENT IN ASSOCIATION WITH LANDFILLS.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: The West Bank Yard (Santa Fe Railway located at 740 Carnegie) is a reported land disposal site that is currently undergoing site clean up activities. The West Bank Yard is located within the southern Tri-City area and the northeastern portion of the Southeast Industrial Park Redevelopment Project Area. Also, the closed Brine land disposal site (located off-site to the north of the western portion of the Southeast Industrial Park Redevelopment Project Area) is currently undergoing site clean up activities as well and may have impacted groundwater underlying the western portion of the Southeast Industrial Park Redevelopment Project Area.

Development within the Project Area may expose the public to a hazardous condition as a result of these land disposal facilities (both on- and off-site). With implementation of Mitigation Measure HAZ-1, a formal Phase I Environmental Site Assessment (ESA) would be prepared on a project-by-project basis, prior to any land acquisition and/or construction activities within the Project Area. The Phase I ESA would identify specific Recognized Environmental Conditions (RECs) (including those resulting from on- and off-site land disposal facilities), which may require further sampling/remedial activities by a qualified hazardous materials consultant with Phase II/Site Characterization experience. With implementation of HAZ-1, impacts would be reduced to less than significant levels.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measure HAZ-1. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

AIRPORTS

- **DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN AN INCREASED HAZARD TO THE PUBLIC OR THE ENVIRONMENT IN ASSOCIATION WITH AIRPORT FACILITIES.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: The San Bernardino International Airport is located in the southeastern edge of the City, specifically approximately 0.5 miles from the Southeast Industrial Park Project Area. This Project Area is currently occupied by manufacturing- and distribution-related warehouse uses. As a result of the long term use of the facility by aircraft, many of the existing, surrounding land uses are industrial or commercial as well. The nearest residential uses under the proposed project would be located approximately 1.2 miles north of the SBIA. However,

there are existing residential uses scattered to the southwest of the airport as well. To a lesser degree, the City is also exposed to safety hazards associated with helicopter operations.

The *General Plan* includes land use designations for industrial around the airport which would prohibit any new residential uses that could be affected by the airport. Policies in the *General Plan* also address compatibility with the noise and safety zones in terms of land use, density, and height. Upon adoption of the Comprehensive Land Use Plan (CLUP) and Airport Master Plan, the *General Plan* would be amended to incorporate the adopted safety zones and any new airport related policies. The Airport Influence Area was adopted by the SBIA and is incorporated in the *General Plan*. In this manner, the required notification and buyer disclosure is addressed in the *General Plan*. Overall, the *General Plan* provides sufficient protection from airport safety hazards. The proposed project would not change the existing land uses permitted through the *General Plan* and *Development Code*. Therefore, impacts are less than significant in this regard.

LAND USE ELEMENT

Goal 2.9 **Protect the airspace of the San Bernardino International Airport and minimize related noise and safety impacts on our citizens and businesses.**

Policy 2.9.1 Require that all new development be consistent with the adopted Comprehensive Land Use Plan for the San Bernardino International Airport and ensure that no structures or activities encroach upon or adversely affect the use of navigable airspace.

Policy 2.9.2 Refer any adoption or amendment of this General Plan, specific plan, zoning ordinance, or building regulation within the planning boundary of the adopted Comprehensive Airport Master Plan for the SBIA to the airport authority as provided by the Airport Land Use Law.

Policy 2.9.3 Limit the type of development, population density, maximum site coverage, and height of structures as specified in the applicable safety zones in the Comprehensive Land Use Plan for the SBIA and as shown on Figure LU-4.

Policy 2.9.5 Ensure that the height of structures does not impact navigable airspace, as defined in the Comprehensive Land Use Plan for the SBIA.

Policy 2.9.6 As required by State Law for real estate transactions within the Airport Influence Area, as shown on Figure LU-4, require notification/disclosure statements to alert potential buyers and tenants of the presence of and potential impacts from the San Bernardino International Airport.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the General Plan are required.

Level of Significance After Mitigation: Not Applicable.

5.10.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN CUMULATIVELY CONSIDERABLE HAZARDS AND HAZARDOUS MATERIALS IMPACTS.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: The proposed project's primary purpose is to alleviate conditions of blight within the Project Area. The proposed project would involve the implementation of several programs and general project activities to alleviate conditions of blight. Therefore, it is anticipated that potential hazards and hazardous material impacts would be similar to those already analyzed in the *General Plan EIR*.

The proposed project would result in the redevelopment of existing uses in the Project Area. These redevelopment activities may result in an increase in the storage and transport of hazardous materials during construction/rehabilitation activities. The redevelopment activities proposed may increase use and transport of hazardous materials in the Project Area, resulting in the increased potential for accidental releases of hazardous materials. However, long-term operations of development associated with the proposed project would also result in a decreased threat to the health and safety of residents, as the proposed redevelopment activities would be required to improve the risk to public health through implementation of Federal, State, and local laws pertaining to hazardous materials. Short-term impacts associated with rehabilitation/construction would be reduced to less than significant with implementation of the recommended Mitigation Measures HAZ-1 through HAZ-4.

Compliance with Federal, State, and local regulations would ensure that potential contamination or exposure to hazardous substances is avoided or controlled to minimize the risk to the public on a case-by-case basis, as the cumulative projects are constructed. Impacts in this regard are less than significant with compliance of applicable Federal, State, and local regulations; *General Plan* goals and policies; and Mitigation Measures HAZ-1 through HAZ-4.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measures HAZ-1 through HAZ-4. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

5.10.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Public health and safety impacts associated with implementation of the proposed project would be less than significant with compliance and/or adherence to the existing Federal, State, and local regulations regarding hazardous materials, *General Plan* goals and policies, and implementation of Mitigation Measures HAZ-1 through HAZ-4. Therefore, no significant unavoidable public health and safety impacts related to hazards or hazardous materials would occur as a result of the proposed project.

5.10.7 SOURCES CITED

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SECTION 5.11
HYDROLOGY, DRAINAGE, AND WATER QUALITY

5.11 HYDROLOGY, DRAINAGE, AND WATER QUALITY

This section evaluates the hydrology, drainage, and water quality conditions within the City of San Bernardino and evaluates the potential for impacts associated with implementation of the proposed project. Mitigation measures to reduce the significance of impacts are recommended, as necessary. Information in this section is based on the following chapters of the *City of San Bernardino General Plan Public Facilities and Services*, *Utilities*, and *Safety* Elements, as well as the 2005 Urban Water Management Plan, and the *County of San Bernardino Multi-Jurisdictional Hazard Mitigation Plan* (April 2005).

5.11.1 REGULATORY SETTING

SAFE DRINKING WATER ACT

The Federal Safe Drinking Water Act (SDWA) provides regulations on drinking water quality in - San Bernardino. The SDWA gives the Environmental Protection Agency (EPA) the authority to set drinking water standards, such as the National Primary Drinking Water regulations (NPDWRs or primary standards). The NPDWRs protect drinking water quality by limiting the levels of specific contaminants that are known to occur or have the potential to occur in water and can adversely affect public health. All public water systems that provide service to 25 or more individuals are required to satisfy these legally enforceable standards. Water purveyors must monitor for these contaminants on fixed schedules and report to the EPA when a Maximum Contaminant Level (MCL) has been exceeded. MCL is the maximum permissible level of a contaminant in water that is delivered to any user of a public water system. Drinking water supplies are tested for a variety of contaminants, including organic and inorganic chemicals (e.g., minerals), substances that are known to cause cancer (e.g., carcinogens), radionuclide (e.g., uranium and radon), and microbial contaminants (e.g., coliform and Escherichia coli). Changes to the MCL list are typically made every three years, as the EPA adds new contaminants or, based on new research or new case studies, revised MCLs for some contaminants are issued. The California Department of Health Services, Division of Drinking Water and Environmental Management is responsible for implementation of the Safe Drinking Water Act in the State of California.

CLEAN WATER ACT

The principal law governing pollution of the nation's surface waters is the Clean Water Act (CWA), formerly known as the Federal Water Pollution Control Act. Originally enacted in 1948, it has been amended several times since. As amended in 1977, the law became commonly known as the CWA. The CWA is a Federal law that protects the nation's surface waters, including lakes, rivers, coastal wetlands, and "waters of the United States." The CWA includes provisions that authorize federal financial assistance for municipal sewage treatment plants and the regulatory requirements that apply to industrial and municipal dischargers. The law gave the authority to set effluent standards on an industry basis. In addition, the CWA requires states to adopt water quality standards that "consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses."

The CWA specifies that discharges to waters are illegal, unless authorized by an appropriate permit. The permits regulate the discharge of dredged and fill materials, construction-related stormwater discharges, and activities that may result in discharges of pollutants to waters of the U.S. Section 404 of the CWA establishes a permit program for the discharge of dredge or fill materials into waters of the U.S. This permit program is administered by the U.S. Army Corps of Engineers (USACE). If waters of the U.S. are located on or downstream of a project site, the project may discharge to them, and if impacts on them are anticipated, the project must obtain a CWA Section 401 Water Quality Certification. Section 402 of the CWA establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredge or fill material) into waters of the U.S. This permitting program is administered by the Regional Water Quality Control Boards. In addition, Section 303 and 304 of the CWA provide for water quality standards, criteria, and guidelines.

PORTER-COLOGNE WATER QUALITY CONTROL ACT

The Porter-Cologne Water Quality Control Act acts in cooperation with the CWA to establish the State Water Resources Control Board (SWRCB). The SWRCB and nine Regional Water Quality Control Boards (RWQCB) are responsible for protecting California's surface waters and groundwater supplies. This act establishes Water Quality Control Plans (Basin Plans) for each of the nine regions overseen by the RWQCB that designate the beneficial uses of California's rivers and groundwater basins. The Santa Ana River Basin Plan gives direction on the beneficial uses of the state waters within Region 8, describes the water quality that must be maintained to support such uses, and provides programs, projects, and other actions necessary to achieve the standards established in the Basin Plan. The Santa Ana River RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements to persons, such as individuals, communities, or businesses whose waste discharges may affect water quality. These requirements are state Waste Discharge Requirements for discharge to land, or federally delegated NPDES permits for discharges to surface water. The Porter-Cologne Water Quality Control Act is also responsible for implementing CWA Sections 401-402 and 303(d) to SWRCB and RWQCBs.

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM PERMIT

Under the National Pollutant Discharge Elimination System (NPDES), all facilities that discharge pollutants from any point source into waters of the United States are required to obtain an NPDES permit. The term pollutant broadly includes any type of industrial, municipal, and agricultural waste discharged into water. Point sources are discharges from publicly owned treatment works (POTWs), discharges from industrial facilities, and discharges associated with urban runoff. While the NPDES program addresses certain specific types of agricultural activities, the majority of agricultural facilities are defined as non-point sources and are exempt from NPDES regulation. Pollutant contributors come from direct and indirect sources. Direct sources discharge directly to receiving waters, whereas indirect sources discharge wastewater to a POTW, which in turn discharges to receiving waters. Under the national program, NPDES permits are issued only to direct point source dischargers. Municipal sources are POTWs that receive primarily domestic sewage from residential and commercial customers. Specific NPDES program areas applicable to municipal sources are the National Pretreatment Program, the Municipal Sewage Sludge Program, Combined Sewer Overflows (CSOs), and the Municipal Storm Water Program. Non-municipal sources include industrial and commercial facilities.

Specific NPDES program areas applicable to industrial sources are: Process Wastewater Discharges, Non-process Wastewater Discharges, and the Industrial Storm Water Program.

NPDES issues two basic permit types: individual and general. Also, the EPA has focused on integrating the NPDES program further into watershed planning and permitting. The NPDES has a variety of measures designed to minimize and reduce pollutant discharges. All counties with a storm drain system that serve a population of 50,000 or more, as well as construction sites one acre or more in size, must file for and obtain an NPDES permit. The Santa Ana RWQCB has issued an individual NPDES municipal storm water (MS4) permit for San Bernardino County. The City of San Bernardino is listed as a participating co-permittee of the County NPDES permit and the Public Works Department is the local enforcing agency of the NPDES within the City. Another measure is the EPA's Storm Water Phase II Final Rule. The Phase II Final Rule requires an operator of a regulated small MS4 to develop, implement, and enforce a program (e.g., Best Management Practices, ordinance or other mechanism) to reduce pollutants in post-construction runoff to their MS4 from new development and redevelopment projects that result in the land disturbance of greater than or equal to one acre.

STATE REGIONAL WATER QUALITY CONTROL BOARD, STORMWATER GENERAL CONSTRUCTION PERMIT

In 1999, the SWRCB adopted Order No. 99-08-DWQ, NPDES General Permit No. CAS000002, Waste Discharge Requirements (WDR) for Discharges of Stormwater Runoff Associated with Construction Activity (General Construction Permit). This permit was subsequently amended to include smaller construction sites. The General Construction Permit requires that construction sites with 1.0 acre or greater of soil disturbance or less than 1.0 acre, but part of a greater common plan of development, apply for coverage for discharges under the General Construction Permit by submitting a Notice of Intent (NOI) for coverage, developing a Stormwater Pollution Prevention Plan (SWPPP), and implementing Best Management Practices (BMPs) to address construction site pollutants.

COUNTY OF SAN BERNARDINO

In partial implementation of CWA Section 402(p), the Phase I and Phase II Storm Water Regulations and the CWC, the Santa Ana RWQCB issued Waste Discharge Requirements for the County of San Bernardino and the Incorporated Cities of San Bernardino County, Order No. R8-2010-0036, NPDES Permit No. CAS618036, Areawide Urban Stormwater Runoff on January 29, 2010. The City of San Bernardino is a permittee under the 2001 Permit and therefore is required by federal and state law to implement all requirements of the 2001 Permit. The goal of the 2001 Permit is to have discharges from land uses in San Bernardino County drainage basins meet water quality standards suitable for the protection of the beneficial uses of the receiving waters (lakes, rivers, ground water, and the ocean).

FEDERAL EMERGENCY MANAGEMENT AGENCY

On March 1, 2003, the Federal Emergency Management Agency (FEMA) became part of the U.S. Department of Homeland Security (DHS). FEMA's primary mission is to reduce the loss of life and property and protect the Nation from all hazards, including flooding, among others.

Flood is a general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties. The term "100-year flood" is defined by FEMA, as the flood elevation that has a one percent chance of being equaled or exceeded each year. A "500-year flood" is one which has a 0.2 percent chance of occurring each year. A 500-year flood event would be slightly deeper and cover a greater area than a 100-year flood event.

Flood zones are geographic areas that FEMA defines, based on studies of flood risk. The zone boundaries are shown on flood hazard maps, also called Flood Insurance Rate Maps (FIRM). High Risk Zones or Special Flood Hazard Areas (Zone A) are high-risk flood areas where special flood, mudflow, or flood-related erosion hazards exist and flood insurance is mandatory. Low-to-Moderate Risk Zones or Non-Special Flood Hazard Areas (Zones B, C, X) are areas that are not in any immediate danger from flooding caused by overflowing rivers or hard rains. Insurance purchase is not required in these zones.

FEMA is responsible for administering the National Flood Insurance Program (NFIP), which enables property owners in participating communities to purchase insurance as protection against flood losses in exchange for State and community floodplain management regulations that reduce future flood damages. In communities that participate in the NFIP, mandatory flood insurance purchase requirements apply to all Zones A, which are communities subject to a 100-year flood event. In addition to providing flood insurance and reducing flood damages through floodplain management regulations, the NFIP identifies and maps the Nation's floodplains on Flood Insurance Rate Maps (FIRM).

CITY OF SAN BERNARDINO MUNICIPAL CODE

The purpose of the City's Storm Water Drainage System chapter in the *Municipal Code* is to ensure the health, safety, and general welfare of the residents of the City by administering regulations to effectively prevent non-storm water discharges into the City's storm water drainage system and to specifically achieve the following objectives:

1. Control discharges form spills, dumping or disposal of materials other than storm water;
2. Reduce the discharge of pollutants in all storm water discharges to the maximum extent practicable;
3. Protection Enhance the water quality of local, state, and federal watercourses, water bodies, ground water and wetlands in a manner pursuant to an consistent with the Clean Water Act;
4. Establish penalties for violations of the provisions of Chapter 8.80;
5. Provide for the equitable distribution of the cost of the storm water drainage system and storm water pollution abatement

NATIONAL FLOOD INSURANCE PROGRAM

FEMA is responsible for the evaluation of flood hazards under the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. To foster appropriate and land use and floodplain development FEMA provides Flood Insurance Rate Maps (FIRMs) for local and regional agencies. The intent of FIRMs is to identify potential flood zones based on existing

conditions at the time of the study. They do not, however, take into account the impacts of future development.

FEMA conducts engineering studies known as Flood Insurance Studies (FISs) to assist in preparing FIRMs that depict the extent of flood hazards in a community susceptible to flooding. FEMA delineates Special Flood Hazard Areas (SFHAs) on FIRMs utilizing technical data compiled in these studies. SFHAs are zones subject to inundation by a base flood; FEMA designates the 100-year flood as the base flood. The 100-year recurrence interval represents only the long-term average period between floods of a specific magnitude. However, it is possible for rare floods to occur at much shorter intervals or even in the same year. In addition to the 100-year base flood, the 500-year flood is shown to further illustrate areas of flood hazard risk.

The National Flood Insurance Program (NFIP) uses the base flood as the regulatory threshold and as the basis for nationwide insurance requirements. Under Flood Disaster Protection Act owners of all structures in identified SFHAs are mandated to purchase flood insurance as a – pre-condition for obtaining Federal or federally related financial assistance, such as mortgage loans from federally insured lending institutions.

Special Flood Hazard Areas (SFHAs) are used by federal agencies, in addition to most county and state agencies, to oversee floodplain management programs. The purpose of floodplain management programs is to attenuate losses related to flood hazards, meanwhile protecting ecological resources and functions of the floodplain.

The concept of floodplain management is fundamentally based on the floodway. FEMA described the floodway as the channel of a river or other watercourse, and adjacent land that must be kept free and clear of encroachment in order to discharge the base flood without cumulatively raising the water surface elevation above a particular height. The purpose is not to prohibit development, rather it is to aid communities in developing appropriate development management guidelines within flood-prone areas. The lead agency is responsible for prohibiting encroachments into the floodway, unless it can be shown through detailed hydrologic and hydraulic analyses that the proposed development will not raise the flood levels downstream.

The NFIP is required to offer federally subsidized flood insurance to property owners in communities where floodplain management ordinances meeting minimum criteria established by FEMA have been adopted and are being actively enforced.

Under the National Flood Insurance Reform Act of 1994, NFIP offers a grant program for state and community flood mitigation projects. In addition, the Act also instituted the Community Rating System (CRS), which is a system for crediting communities that implement measures to protect the natural and beneficial functions of their floodplains, as well as managing the erosion hazard.

Since July 16, 1979, the City of San Bernardino has participated as a regular member in the NFIP. The City's most-recent effective FIRM maps are dated January 17, 1997. Based on the City's participation in the NFIP, subsidized flood insurance is accessible to any property owner in the City. In fact, property owners are required to obtain flood insurance to receive secured financing to buy, build, or improve structures in SFHAs. If a lending institution is federally

regulated or federally insured, it must determine if the structure is located in a SFHA and it must provide written notice requiring flood insurance.

5.11.2 ENVIRONMENTAL SETTING

SURFACE WATERS

Existing Regional Drainage System

As discussed in the *San Bernardino General Plan EIR*, the City of San Bernardino is located within the Santa Ana River Basin (Region 8) of the Regional Water Quality Control Board. The Santa Ana River Basin reaches from the San Bernardino and San Gabriel Mountains in the north and east to Newport Bay along the coast. This Basin is geographically RWQCB's smallest region, totaling approximately 2,800 square miles; however, it covers one of the largest populations with nearly five million people. The region contains 460 miles of streams, 21,090 acres of lakes and 24 miles of coastline.

The Santa Ana River is the largest stream system in southern California. In addition, it is the region's main surface water body. The Orange County Groundwater Basin uses recharge supplies from the Santa Ana River, which carries more than 125 million gallons per day of reclaimed water from Riverside and San Bernardino Counties. Approximately 40 percent of Orange County's water demand is met through the Santa Ana River.

The Santa Ana River has a number of tributaries in the vicinity of San Bernardino that contribute flow to the main stem of the river including Lytle Creek, East Twin Creek, East Warm Creek, and San Timoteo Creek. In the San Bernardino Area, the San Jacinto Fault (Bunker Hill Dike) forces groundwater to the surface. Under present conditions, perennial flows in the middle Santa Ana River begin at the confluence with East Warm Creek, located a short distance upstream. The areas with the rising water which surround the fault are now relatively small, but were historically a more expansive swampy area with many large springs. San Timoteo Creek, which the Army Corps of Engineers (ACOE) plans to line with concrete in the near future, confluences with the river in this area, and its flows consist mainly of reclaimed wastewater from Yucaipa and other upstream dischargers.

East Warm Creek near San Bernardino transports small amounts of water from various non-point sources as well as some rising groundwater. The river passes under several major highways and railroads in this area, and portions of the river bottom are lined with concrete. West Warm Creek (an ephemeral creek), fully improved by the ACOE for flood control, also joins the river in this area.

The Santa Ana River's main stem is divided into six reaches. Each reach is generally a hydrologic and water quality unit described as follows:

> ***Reach 6*** includes the river upstream of Seven Oaks Dam. Flows consist largely of snowmelt and storm runoff. Water quality tends to be very high.
>
> ***Reach 5*** extends from Seven Oaks dam to San Bernardino, to the San Jacinto Fault, which marks the downstream edge of the Bunker Hill Groundwater Basin. Most of this reach tends to be dry, except as a result of storm flows, and the channel is largely

operated as a flood control facility. The extreme lower end of this reach includes rising water and intermittently receives San Timoteo Creek flows. Stormwater run-off from the City of San Bernardino would primarily discharge into the lower end of this reach.

Beneficial uses of water in the reach have been determined to be Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Groundwater Recharge (GWR), Hydropower Generation (POW), Water Contact Recreation (REC1), Non-contact Water Recreation (REC2), Warm Freshwater Habitat (WARM), Wildlife Habitat (WILD), and Rare, Threatened and Endangered Species (RARE). The beneficial use classifications help define and establish water quality standards which are detailed in the *Water Quality Control Plan* for the Santa Ana River Basin.

Reach 4 includes the river from the Bunker Hill Dike down to Mission Boulevard Bridge in Riverside. That bridge marks the upstream limit of rising water induced by the flow constriction in the Riverside Narrows. Until about 1985, rising water from upstream and wastewater discharges percolated and the lower part of the reach was dry. Flows are now perennial, but may not remain so as new projects are built. Much of this reach is also operated as a flood control facility.

Reach 3 includes the river from Mission Bridge to Prado Dam. In the Narrows, rising water feeds several small tributaries (Sunnyslope Channel, Tequesquite Arroyo, and Anza Park Drain) which are important breeding and nursery areas for native fish. Temescal, Chino, and Mill/Cucamonga Creeks in Prado Basin are also important river tributaries.

Reach 2 carries all the upstream flows down through Santa Ana Canyon to Orange County, where as much of the water as possible is recharged into the Orange County groundwater basin. The downstream end of the forebay/recharge area and, therefore, the ordinary limit of surface flows, are at 17th Street in Santa Ana.

Reach 1 is normally a dry flood control facility, presently being expanded and improved even further as part of the ACOE Santa Ana River Project. This reach extends from 17th Street to the tidal prism at the ocean.

The primary water quality issue for the Santa Ana River watershed is degradation due to high concentrations of nitrogen (primarily from past agricultural practices) and total dissolved solids (TDS).[1]

Existing Local Drainage System

Within the Project Area and surrounding vicinity are natural drainage courses, man-made channels, storm drains, street waterways, dams, basins, and levees. These facilities are administered by the City of San Bernardino, San Bernardino County Flood Control District, Army Corps of Engineers, and San Bernardino International Airport and Trade Center. The City Public Works Department is responsible for the design and construction of storm drain and flood control facilities. The operation and maintenance of storm drain and flood control facilities,

[1] City of San Bernardino, *General Plan Update and Associated Specific Plans EIR*, Hydrology and Water Quality Section.

however, are the responsibility of the Public Services Department. Much of the Project Area is impervious to stormwater.

In accordance with the District's Comprehensive Storm Drain Plans No. 3, 4, 6, and 7, the San Bernardino County Flood Control District divides the City of San Bernardino into subareas for planning purposes. The City uses the Flood Control District's Comprehensive Storm Drain Plans for the development of the City's storm drain system. All 10-year frequency storm waters, except for street flows at intersection points, are required to be contained in the underground drain system. Storm flows greater than 10-year frequency storm flows, but less than or equal to the 25-year storm flow, are to be carried in the curbed portion of the street. Storm flows associated with 100-year events may be carried in the street right-of-way. Flows from a 100-year storm event may also be conveyed through a combination of storm drains sized for a 25-year event in the curbed part of the street with the remaining flows conveyed in the street right-of-way.

The City of San Bernardino has instituted design specifications for both major and local drainage facilities within the City. Major drains include 36-inch or larger pipes (or equivalent channels) and are shown on the comprehensive storm drain plans. Local drains include conduits smaller than or equal to 36 inches in diameter (or equivalent channel). Some streets in the City are specifically designed to accommodate storm flows. Flows carried within the street right-of-way may cause localized flooding during storms, possibly making some roads impassable during these events.[2]

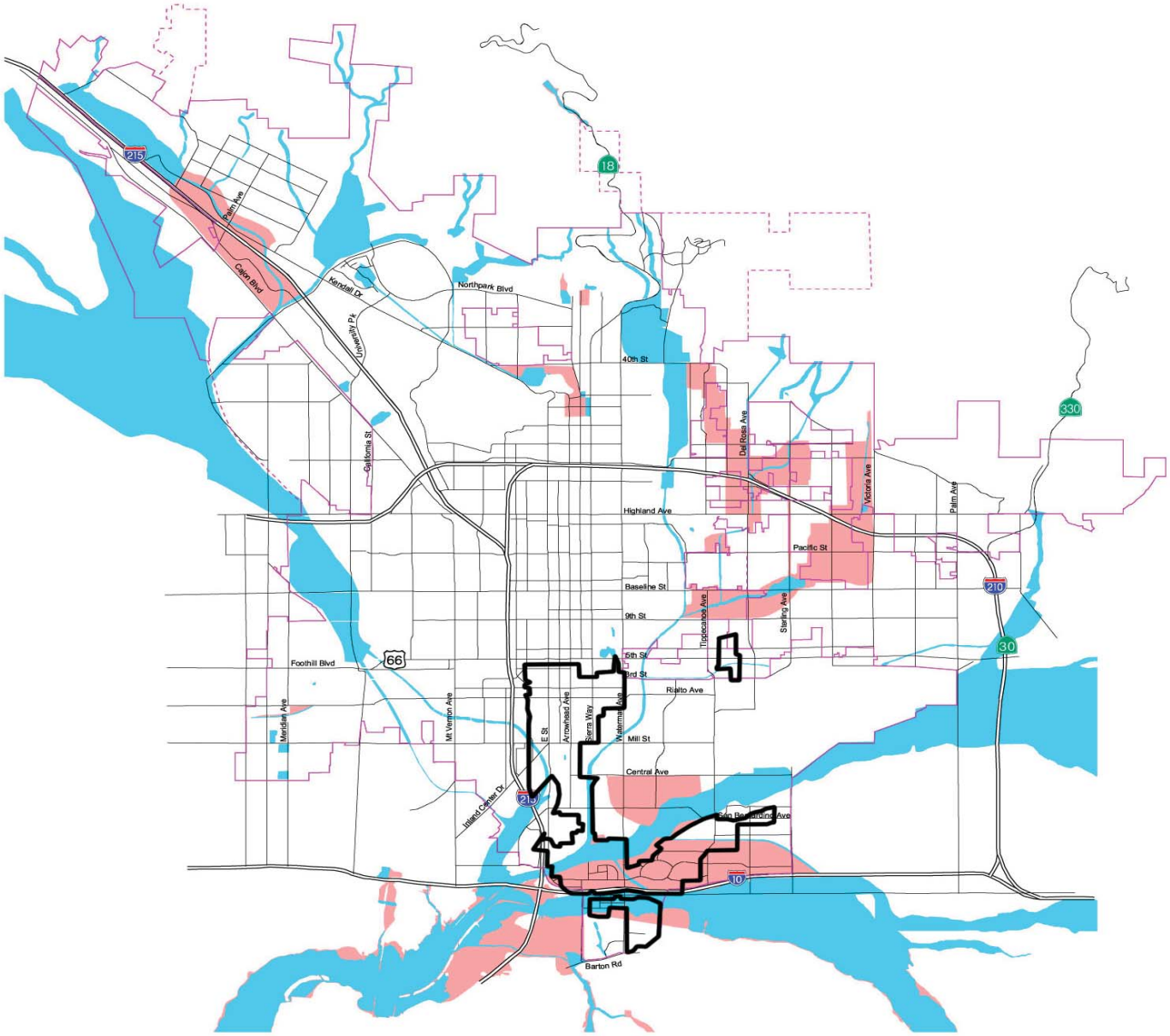
Floodplain Mapping

Like the majority of southern California, San Bernardino is subject to fluctuating seasonal rainfall. During most years, winter rains are scarce. However, every few years the region experiences periods of intense and sustained precipitation, which results in flooding. Floods are natural and cyclical events. However, they become hazardous when humans and structures encroach into floodplains and modify the natural landscape, increasing the area of impervious surface and building structures in areas meant to convey excess water during flood events.

Under the NFIP, Flood Insurance Rate Maps (FIRMs) have been prepared which contain official delineation of flood insurance zones and base flood elevation lines. Within the project vicinity, the 100-year floodplain is confined to storm channels, debris basins, and between levees with a few minor exceptions. A few isolated areas, including the Baseline Street and Sterling Avenue area, Mountain View Avenue area, and south of Redlands Boulevard, east of Hunts Lane, are identified as low areas within the 100-year floodplain. The 100-year flood plain within the City of San Bernardino is illustrated in *Exhibit 5.11-1*, *100-Year Floodplain*.

In addition to storm events, basements and underground utility vaults may also incur flooding in areas between the Santa Ana River and downtown due to the City's existing high groundwater table.

[2] City of San Bernardino, *General Plan Update and Associated Specific Plans EIR*, Hydrology and Water Quality Section.



100-Year Flood Zone

500-Year Flood Zone

City Boundary

Sphere of Influence Boundary

Project Area

Note: The Project Area boundary is approximate. Refer to Exhibit I-2 in the *San Bernardino Merged Area A Merger & Amendments Preliminary Report* for the Merged Area A boundary.

Source: Federal Emergency Management Agency Flood Insurance Rate Maps. Date: 1990

SOURCE: City of San Bernardino General Plan, November 1, 2005.

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ENVIRONMENTAL IMPACT REPORT
SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS

100-Year Floodplain

Exhibit 5.11-1

The Santa Ana River Mainstem Project was designed to provide flood protection to the growing urban communities in Orange, Riverside, and San Bernardino Counties. The proposed improvements cover a stretch of 75 miles, from the headwaters of Santa Ana River east of San Bernardino to the mouth of the Pacific Ocean between the cities of Newport Beach and Huntington Beach. The project increases levels of flood protection to more than 3.35 million residents within the three counties. The project includes seven independent features, including Seven Oaks Dam, Mill Creek Levee, San Timoteo Creek, Oak Street Drain, Prado Dam, Santiago Creek, and Lower Santa Ana River.

Dam Inundation

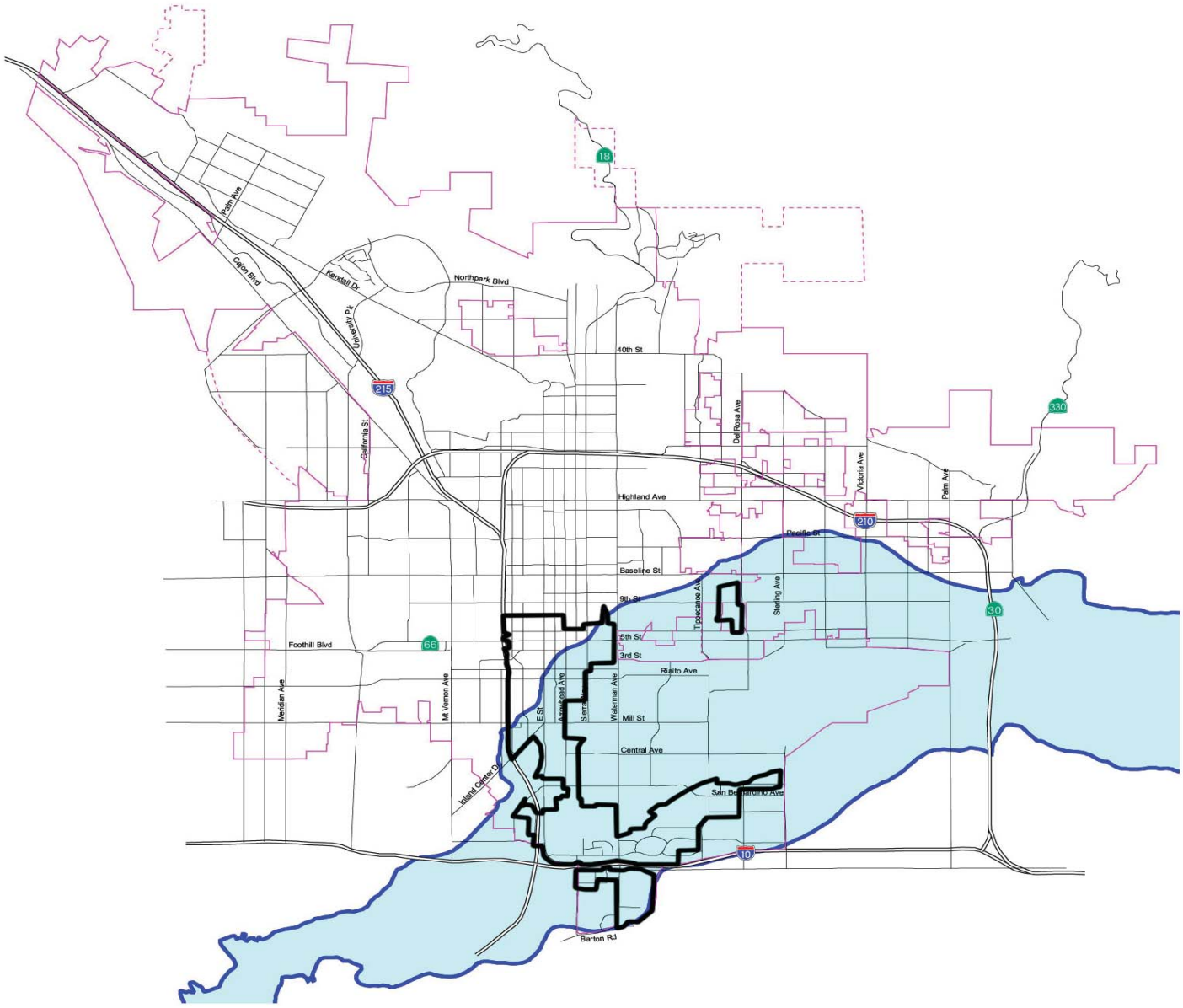
Flooding can occur when water retention structures (e.g., dams, levees) fail due to seismic events. The California Division of Dam Safety is responsible for administering the statutes contained within the *California State Water Code* which govern dam safety. These statutes relate to the structural safety of dams that are greater than 25 feet in height or have a storage capacity greater than 50 acre-feet.

Seven Oaks Dam is a single-purpose flood control project constructed by the USACE. The dam is located on the Santa Ana River in the upper Santa Ana Canyon nine miles northeast of the easternmost limit of the Project Area. The 550-foot tall, 2,600-foot wide dam consists of earth and rock-filled construction.

The Dam operates in conjunction with Prado Dam, which is located downstream of the City of San Bernardino, to provide flood protection to the inland region. During the early part of each flood season, runoff is retained behind the dam in order to build a debris pool to protect the outlet works. Small controlled releases are then made on a continual basis in order to maintain a steady water supply downstream of Prado Dam. The dam is designed to provide flood protection during a 350-year event and withstand an 8-plus magnitude earthquake. During flood conditions, the dam creates a pool 500 feet deep extending three miles upstream. In the unlikely event of dam failure the inundation zone for the Seven Oaks Dam is shown on *Exhibit 5.11-2*, *Seven Oaks Dam Inundation*. The southeastern portion of the City of San Bernardino and a large portion of the Project Area would be affected.

Aboveground Water Reservoirs

If strong ground shaking causes structural failure to aboveground water reservoirs, seismically induced inundation can also occur. Sloshing water can lift a water tank off its foundation if the tank is not adequately braced and baffled. This disturbance could split the shell, damage the roof, and/or bulge the bottom of the tank. Disruption can also shear off pipes connected to the tank releasing water. Similar events occurred during southern California's Landers (1992), Big Bear (1992), and Northridge earthquakes (1994). New regulations were adopted in 1994 to improve the resistance to earthquake damage for steel water tanks.



Limit of Flooded Area with Dam Failure

City Boundary

Sphere of Influence Boundary

Project Area

Note: The Project Area boundary is approximate. Refer to Exhibit I-2 in the *San Bernardino Merged Area A Merger & Amendments Preliminary Report* for the Merged Area A boundary.

Source: U.S. Army Corps of Engineers
Note: The inundated areas shown on this map reflect events of an extremely remote nature. These results are not in any way intended to reflect upon the integrity of the Seven Oaks Dam. Flooded areas shown are based on dam failure at full pool elevation 2,580 feet, NGVD.

SOURCE: City of San Bernardino General Plan, November 1, 2005.

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ENVIRONMENTAL IMPACT REPORT
SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS

Seven Oaks Dam Inundation

Exhibit 5.11-2

GROUNDWATER

Groundwater Supply

An aquifer is a formation of saturated rock through which groundwater can easily be conducted. Aquifers must be permeable and include such rock types as sandstone, conglomerate, fractured limestone and/or unconsolidated sand and gravel in order to yield significant quantities of water to wells and springs. Perched groundwater can occur above a permanent groundwater zone if it is separated by soil or bedrock zones of low permeability.

Groundwater basins are generally broad tracts of land with highly permeable soils which allow for recharge of the aquifers. Typically, these basins are situated along river or streambeds or within alluvial fans where soils tend to be highly permeable. The specific geologic and hydrologic conditions in an area determine the quantity of groundwater found in an aquifer. The majority of the readily accessible groundwater is extracted from aquifers consisting of recent alluvium, with lesser quantities of groundwater found in jointed bedrock and residuum.

The San Bernardino region is composed of extensive groundwater basins which overly the Upper Santa Ana Valley Groundwater Basin, Bunker Hill Subbasin. Alluvial materials are found within the Bunker Hill Basin which underlies the San Bernardino Valley. The limits of this Basin are delineated by the consolidated rock of the San Gabriel Mountains, San Bernardino Mountains, Crafton Hills, and by several faults. The Santa Ana River, Mill Creek, and Lytle Creek are the primary watercourses in the Basin.

The Basin groundwater is supplied from rain and snow pack melt that filters down through the San Bernardino Mountain canyons. Historically, recharge of the Bunker Hill Basin has been the result of percolation of runoff from the San Gabriel and San Bernardino Mountains. The region's three main watercourses, Santa Ana River, Mill Creek, and Lytle Creek, supply more than 60 percent of the total recharge to the groundwater system. Additionally, smaller contributors such as Cajon Creek, San Timoteo Creek, and most of the creeks flowing southward out of the San Bernardino Mountains, including East Twin Creek, add recharge to the system. Total groundwater storage of the Basin is 5,976,000 acre-feet,[3] while in 1998 the total storage was 5,890,300 acre-feet.

The water-bearing material in the Basin is classified as Holocene and Pleistocene-age alluvial deposits of sand, gravel, and boulders interspersed with deposits of silt and clay. The water-bearing material has been divided into upper and lower aquifers. In the central portion of the Basin, a clay layer exhibiting low permeability separates the two aquifers, creating confined groundwater within the lower aquifer under approximately 25 square miles of the Valley. The upper aquifer has a maximum thickness of approximately 350 feet, while the maximum thickness of the lower aquifer is approximately 650 feet. Groundwater generally converges in the southwestern part of the Basin as it approaches the Santa Ana River and discharges over the San Jacinto fault at Colton Narrows.

The Bunker Hill Basin provides San Bernardino with 100 percent of its water supply. San Bernardino Municipal Water Department (SBMWD) owns a total of 60 wells in the basin, some of which are 1,200 feet deep and tap into the aquifer.

[3] California Department of Water Resources, *California's Groundwater Bulletin 118*, February 27, 2004.

Groundwater Quality

According to the *General Plan EIR*, the Bunker Hill Basin contains contamination from trichloroethylene (TCE) and tetrachloroethylene (PCE) above acceptable California State Action levels of five parts per billion (ppb) for TCE and four ppb for PCE (also known as perchloroethylene or PERC). Nitrates have also been identified in concentrations above State action levels for nitrates of 45 parts per million (ppm).

Groundwater Contamination Clean-Up Sites (Cortese List)

The Cortese list database identifies hazardous waste sites selected for remedial action and underground storage tank (UST) properties having a reportable release and is maintained by the EPA/Office of Emergency Information. According to the California Department of Toxic Substances Control, there are two sites within the City's planning area for remedial clean up on the Cortese list: the former Norton Air Force Base is a 2,208 acres site southeast of the planning area, but outside of the proposed Project Area; and the Newmark Groundwater Contamination site in the northern portion of the Bunker Hill Ground Water Basin.[4]

Newmark Groundwater Contamination

The Newmark Groundwater Contamination site underlies a portion of the City's planning area with two groundwater plumes on either side of Shandin Hills. The Newmark Plume area stretches 5 miles on the east side of the Shandin Hills and on the west side lies the Muscoy Plume area, extending 4 miles north. Contaminants found in these plumes include chlorinated solvents, PCE and TCE, resulting in the closure of 20 water supply wells within a 6-mile radius. The Newmark Groundwater Contamination Site was listed on the National Priorities List in 1989. Through treatment approved by the EPA and administered by the San Bernardino Municipal Water Department using conventional activated carbon adsorption technology, contaminants are prevented from entering this part of the Valley. However, this site is located approximately 4 miles to the north of proposed Project Area.

Spills, Leaks, Investigations, and Cleanups

California Environmental Protection Agency's (Cal EPA), Spills, Leaks, Investigations, and Cleanups (SLIC) Section has oversight authority on non-underground storage tank (UST) sites where soil or groundwater has been contaminated. Many of these sites are former industrial facilities and dry cleaners, where chlorinated solvents were released, or have leached into the soil or groundwater. The Santa Ana Regional Water Quality Control Board's Spill, Leaks, Investigation and Cleanup (SLIC) List has identified a number of businesses within the City's boundaries; refer to Section 5.10, Hazards/ Risk of Upset, for a discussion on Cal EPA, SLIC sites within the Project Area.

[4] Department of Toxic Substances Control, *DTSC's Hazardous Waste and Substances Site List (Cortese List), San Bernardino County,* http://www.dtsc.ca.gov/database/Calsites/Cortese_List.cfm?county=36.

STORMWATER QUALITY

Stormwater quality is a significant concern in Southern California. This section discusses typical pollutants found in stormwater runoff and discusses the types of contaminants that may be found in existing stormwater runoff.

Nonpoint Source Pollutants

A net effect of urbanization can be to increase pollutant export over naturally occurring conditions. The impact of this increased export on adjacent streams and downstream receiving waters is an important consideration in evaluating a project's stormwater quality. If a beneficial use to the receiving waters is impaired then an impact has occurred. Receiving waters can assimilate a limited quantity of various constituent elements, however, there are thresholds beyond which the measured amount becomes a pollutant and results in an undesirable impact. The backgrounds of these standard water quality categories provide an understanding of typical urbanization impacts. Nonpoint source pollutants have been characterized by the following major categories in order to assist in determining the pertinent data and its use.

Sediment. Sediment is made up of tiny soil particles that are washed or blown into surface waters. It is the major pollutant by volume in surface water. Suspended soil particles can cause the water to look cloudy or turbid. The fine sediment particles also act as a vehicle to transport other pollutants including nutrients, trace metals, and hydrocarbons. Construction sites are the largest source of sediment for urban areas under development. Another major source of sediment is streambank erosion, which may be accelerated by increases in peak rates and volumes of runoff due to urbanization.

Nutrients. Nutrients are a major concern for surface water quality, especially phosphorous and nitrogen can cause algal blooms and excessive vegetative growth. Of the two, phosphorus is usually the limiting nutrient that controls the growth of algae in lakes. The orthophosphorous form of phosphorus is readily available for plant growth. The ammonium form of nitrogen can also have severe effects on surface water quality. The ammonium is converted to nitrate and nitrite forms of nitrogen in a process called nitrification. This process consumes large amounts of oxygen, which can impair the dissolved oxygen levels in water. The nitrate form of nitrogen is very soluble and is found naturally at low levels in water. When nitrogen fertilizer is applied to lawns or other areas in excess of plant needs, nitrates can leach below the root zone, eventually reaching ground water. Orthophosphate from auto emissions also contributes phosphorus in areas with heavy automobile traffic. As a general rule of thumb, nutrient export is greatest from development sites with the most impervious areas. Other problems resulting from excess nutrients are: 1) surface algal scums; 2) water discolorations; 3) odors; 4) toxic releases; and 5) overgrowth of plants. Common measures for nutrients are total nitrogen, organic nitrogen, total Kjeldahl nitrogen (TKN), nitrate, ammonia, total phosphate and total organic carbon (TOC).

Trace Metals. Trace metals are primarily a concern because of their toxic effects on aquatic life and their potential to contaminate drinking water supplies. The most common trace metals found in urban runoff are lead, zinc and copper. Fallout from automobile emissions is also a major source of lead in urban areas. A large fraction of the trace metals in urban runoff are attached to sediment and this effectively reduces the level, which is immediately available for biological uptake and subsequent bioaccumulation. Metals associated with the sediment settle out rapidly and accumulate in the soils. In addition, urban runoff events typically occur over a

shorter duration, which reduces the amount of exposure, which could be toxic to the aquatic environment. The toxicity of trace metals in runoff varies with the hardness of the receiving water. As total hardness of the water increases, the threshold concentration levels for adverse effects increases.

Oxygen-Demanding Substances. Aquatic life is dependent on the dissolved oxygen (DO) in the water and when organic matter is consumed by microorganisms then DO is consumed in the process. A rainfall event can deposit large quantities of oxygen demanding substance in lakes and streams. The biochemical oxygen demand of typical urban runoff is on the same order of magnitude as the effluent from an effective secondary wastewater treatment plant. A problem from low dissolved oxygen results when the rate of oxygen-demanding material exceeds the rate of replenishment. Oxygen demand is estimated by direct measure of DO and indirect measures such as biochemical oxygen demand (BOD), chemical oxygen demand (COD), oils and greases, and TOC.

Bacteria. Bacteria levels in undiluted urban runoff exceed public health standards for water contact recreation almost without exception. Studies have found that total coliform counts exceeded EPA water quality criteria at almost every site and almost every time it rained. The coliform bacteria that are detected may not be a health risk in themselves, but are often associated with human pathogens.

Oil and Grease. Oil and grease contain a wide variety of hydrocarbons some of which could be toxic to aquatic life in low concentrations. These materials initially float on water and create the familiar rainbow-colored film. Hydrocarbons have a strong affinity for sediment and quickly absorb to it. The major source of hydrocarbons in urban runoff is through leakage of crankcase oil and other lubricating agents from automobiles. Hydrocarbon levels are highest in the runoff from parking lots, roads, and service stations. Residential land uses generate less hydrocarbons export, although illegal disposal of waste oil into stormwaters can be a local problem.

Other Toxic Chemicals. Priority pollutants are generally related to hazardous wastes or toxic chemicals and can be sometimes detected in stormwater. Priority pollutant scans have been conducted in previous studies of urban runoff, which evaluated the presence of over 120 toxic chemicals and compounds. The scans rarely revealed toxins that exceeded the current safety criteria. The urban runoff scans were primarily conducted in suburban areas not expected to have many sources of toxic pollutants (with the possible exception of illegally disposed or applied household hazardous wastes). Measures of priority pollutants in stormwater include: 1) phthalate (plasticizer compound); 2) phenols and creosols (wood preservatives); 3) pesticides and herbicides; 4) oils and greases; and 5) metals.

Physical Characteristics of Surface Water Quality

Standard parameters, which assess the quality of stormwater, provide a method of measuring impairment. The backgrounds of these typical characteristics assist in understanding water quality requirements. The quantity of a material in the environment and its characteristics determine the degree of availability as a pollutant in surface runoff. In an urban environment, the quantity of certain pollutants in the environment is a function of the intensity of the land use. For instance, a high density of automobile traffic makes a number of potential pollutants (such as lead and hydrocarbons) more available. The availability of a material, such as a fertilizer, is

a function of the quantity and the manner in which it is applied. Applying fertilizer in quantities that exceed plant needs leaves the excess nutrients available for loss to surface or groundwater.

The physical properties and chemical constituents of water traditionally have served as the primary means for monitoring and evaluating water quality. Evaluating the condition of water through a water quality standard refers to its physical, chemical, or biological characteristics. Water quality parameters for stormwater comprise a long list and are classified in many ways. In many cases, the concentration of an urban pollutant, rather than the annual load of that pollutant, is needed to assess a water quality problem. Some of the physical, chemical, or biological characteristics that evaluate the quality of the surface runoff are outlined below.

Dissolved Oxygen. Dissolved oxygen in the water has a pronounced effect on the aquatic organisms and the chemical reactions that occur. It is one of the most important biological water quality characteristics in the aquatic environment. The dissolved oxygen concentration of a water body is determined by the solubility of oxygen, which is inversely related to water temperature, pressure, and biological activity. Dissolved oxygen is a transient property that can fluctuate rapidly in time and space. Dissolved oxygen represents the status of the water system at a particular point and time of sampling. The decomposition of organic debris in water is a slow process and the resulting changes in oxygen status also respond slowly. The oxygen demand is an indication of the pollutant load and includes measurements of biochemical oxygen demand or chemical oxygen demand.

Biochemical Oxygen Demand (BOD). The biochemical oxygen demand (BOD) is an index of the oxygen-demanding properties of the biodegradable material in the water. Samples are taken from the field and incubated in the laboratory at 20°C, after which the residual dissolved oxygen is measured. The BOD value commonly referenced is the standard five-day values. These values are useful in assessing stream pollution loads and for comparison purposes.

Chemical Oxygen Demand. The chemical oxygen demand (COD) is a measure of the pollutant loading in terms of complete chemical oxidation using strong oxidizing agents. It can be determined quickly because it does not rely on bacteriological actions as with BOD. COD does not necessarily provide a good index of oxygen demanding properties in natural waters.

Total Dissolved Solids (TDS). TDS concentration is determined by evaporation of a filtered sample to obtain residue whose weight is divided by the sample volume. The TDS of natural waters varies widely. There are several reasons why TDS is an important indicator of water quality. Dissolved solids affect the ionic bonding strength related to other pollutants such as metals in the water. TDS are also a major determinant of aquatic habitat. TDS affects saturation concentration of dissolved oxygen and influences the ability of a water body to assimilate wastes. Eutrophication rates depend on total dissolved solids.

pH. The pH of water is the negative log, base 10, of the hydrogen ion (H+) activity. A pH of seven is neutral; a pH greater than seven indicates alkaline water; a pH less than seven represents acidic water. In natural water, carbon dioxide reactions are some of the most important in establishing pH. The pH at any one time is an indication of the balance of chemical equilibrium in water and affects the availability of certain chemicals or nutrients in water for uptake by plants. The pH of water directly affects fish and other aquatic life and generally toxic limits are pH values less than 4.8 and greater than 9.2.

Alkalinity. Alkalinity is the opposite of acidity, representing the capacity of water to neutralize acid. Alkalinity is also linked to pH and is caused by the presence of carbonate, bicarbonate, and hydroxide, which are formed when carbon dioxide is dissolved. A high alkalinity is associated with a high pH and excessive solids. Most streams have alkalinities less than 200 mg/l and ranges of alkalinity of 100-200mg/l seem to support well-diversified aquatic life.

Specific Conductance. The specific conductivity of water, or its ability to conduct an electric current, is related to the total dissolved ionic solids. Long-term monitoring of a project's waters can develop a relationship between specific conductivity and TDS. Its measurement is quick and inexpensive and can be used to approximate TDS. Specific conductivities in excess of 2000 µohms/cm indicate a TDS level too high for most freshwater fish.

Turbidity. The clarity of water is an important indicator of water quality that relates to the alkalinity of photosynthetic light to penetrate. Turbidity is an indicator of the property of water that causes light to become scattered or absorbed. Turbidity is caused by suspended clays and other organic particles. It can be used as an indicator of certain water quality constituents such as predicting sediment concentrations.

Nitrogen (N). Sources of nitrogen in stormwater are from the additions of organic matter to water bodies or chemical additions. Ammonia and nitrate are important nutrients for the growth of algae and other plants. Excessive nitrogen can lead to eutrophication since nitrification consumes dissolved oxygen in the water. Nitrogen occurs in many forms. Organic Nitrogen breaks down into ammonia, which eventually becomes oxidized to nitrate-nitrogen, a form available for plants. High concentrations of nitrate-nitrogen (N/N) in water can stimulate growth of algae and other aquatic plants, but if phosphorus (P) is present, only about 0.30 mg/l of nitrate-nitrogen is needed for algal blooms. Some fish life can be affected when nitrate-nitrogen exceeds 4.2 mg/l. There are a number of ways to measure the various forms of aquatic nitrogen. Typical measurements of nitrogen include Kjeldahl nitrogen (organic nitrogen plus ammonia); ammonia; nitrite plus nitrate; nitrite; and nitrogen in plants. The principal water quality criteria for nitrogen focus on nitrate and ammonia.

Phosphorus (P). Phosphorus is an important component of organic matter. In many water bodies, phosphorus is the limiting nutrient that prevents additional biological activity from occurring. The origin of this constituent in urban stormwater discharge is generally from fertilizers and other industrial products. Orthophosphate is soluble and is considered to be the only biologically available form of phosphorus. Since phosphorus strongly associates with solid particles and is a significant part of organic material, sediments influence concentration in water and are an important component of the phosphorus cycle in streams. The primary methods of measurement include detecting orthophosphate and total phosphorus.

Existing Stormwater Quality

In the absence of existing site-specific stormwater runoff data, expected stormwater quality can be qualitatively discussed by relating typical pollutants to specific land uses. The City of San Bernardino is primarily built out (approximately 80.6 percent). These conditions are similar to the Project Area, with approximately 465 acres of vacant land (approximately 19.percent). Existing development within the City includes residential, commercial, office, industrial, school/civic/institutional, and public facilities uses, as well as vacant land. Expected pollutants from stormwater runoff are oil and grease from automobile use. Other pollutants associated

with residential, commercial, and school/civic/institutional development include trash, nutrients, bacteria, oil and grease, and household hazardous wastes. Undeveloped areas could add suspended solids into stormwater runoff.

Residential Activities and Development

Residential and urban development is often a significant source of stormwater pollution. Residential development is an abundant land use within the City. Development and redevelopment activities have two primary effects on water quality; they are sources of erosion and sedimentation during the construction phase and long-term effects on runoff once the development is complete. Residential and urban development can affect water quality in three ways:

- Impervious surfaces associated with development increase the rate and volume of stormwater runoff, which increase downstream erosion potential;
- Urban activities generate dry-weather ("nuisance") flows, which may contain pollutants and/or may change the ephemeral nature of streams and the degradation of certain habitats; and,
- Impervious surfaces increase the concentration of pollutants during wet weather flows.

The potential for negative water quality effects is generally correlated to the density of development and the amount of impervious area associated with development. Residential development has the potential to generate sediments such as nutrients and organic substances (including fertilizers), pesticides (from landscape application), trash and debris (including household hazardous waste), oxygen demand, oil and grease (from driveways and roads), and bacteria and viruses.

Municipal Activities and Development

Infrastructure and facilities (roads, streets, highways, parking facilities, storm drains, and flood management facilities) present a threat to water quality. Other facilities such as parks, airfields, water treatment plants, wastewater reclamation plants, landfills and transfer centers, and corporate yards also present water quality issues. Municipalities may also own and administer areas and activities tributary to impaired water bodies and/or water quality sensitive areas that might be harmful to water quality.

Commercial and Industrial Activities and Development

Certain commercial activities have the potential to generate pollutants that can negatively affect stormwater quality. Auto repair shops, for instance, have the potential to generate heavy metals, oils, toxic chemicals and other oxygen-demanding substances. In addition, restaurants have the potential to generate pollutants such as grease, trash and other oxygen-demanding substances.

Light and heavy industrial activities can significantly affect water quality, depending on the type of pollutants and activity. In general, industrial activity is associated with effects on ambient water temperature, alkalinity levels of total suspended solids and oxygen demand. Certain industrial uses may entail the generation of heavy metals, nutrients, toxic chemicals, and other

pollutants. Industrial uses that take place indoors do not have stormwater pollutant exposure and present little threat to stormwater quality.

Industrial and commercial activities within the City have the potential to significantly affect water quality. Multiple industrial and commercial properties within the City are listed as large-quantity and small quantity hazardous materials generators. Many sites have reported releases of hazardous materials to the soil and groundwater. Approximately 142 Leaking Underground Fuel Tanks (LUFT) have been reported in the City of San Bernardino[5]; refer to Section 5.10, Hazards and Hazardous Materials for additional discussion on leaking underground fuel tanks.

5.11.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to hydrology, drainage, and water quality. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Violate any water quality standards or waste discharge requirements.
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted) (refer to Section 8.0, Effects Found Not To Be Significant).
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site (refer to Section 8.0, Effects Found Not To Be Significant).
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, such as from areas of material storage, vehicle or equipment maintenance (including washing or detailing), waster handling, hazardous materials handling or storage, delivery areas, loading docks, or other outdoor areas.
- Otherwise substantially degrade water quality.

[5] City of San Bernardino, *General Plan Update and Associated Specific Plans EIR*, Hydrology and Water Quality Section

- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map (Panel No. 06071C7930 F).

- Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam,

- Inundation by seiche, tsunami, or mudflow (refer to Section 8.0, Effects Found Not To Be Significant).

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.11.4 PROJECT IMPACTS AND MITIGATION MEASURES

WATER QUALITY STANDARDS

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD VIOLATE ANY WATER QUALITY STANDARDS OR WASTE DISCHARGE REQUIREMENTS.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Impacts to water quality would range over three different periods: (1) during the earthwork and construction phase, when the potential for erosion, siltation, and sedimentation would be the greatest; (2) following construction, prior to the establishment of ground cover, when the erosion potential may remain relatively high; and (3) following completion of any projects undertaken in the proposed Project Area, when impacts related to sedimentation would decrease markedly, but those associated with urban runoff would increase.

Short-Term Water Quality Impacts

Construction grading, excavation, and other construction activities associated with implementation of the proposed project could impact water quality due to sheet erosion resulting from exposed soils and subsequent deposition of particles and pollutants in drainage areas. Construction of future development projects has the potential to produce typical pollutants such as nutrients, heavy metals, pesticides/herbicides, toxic chemicals, oils/fuels, lubricants, and solvents. Additionally, waste materials such as wash water, paints, wood, paper, concrete, food containers and sanitary wastes may be transported from the Project Area to nearby drainages, watersheds and groundwater in storm water runoff, wash water and dust control water. The significance of these water quality impacts would vary depending upon the level of construction activity, weather conditions, soil conditions, and increased sedimentation of drainage systems within the area.

Construction controls to minimize water quality impacts are not necessarily the same measures utilized for long-term water quality management, since construction-related water quality control measures are temporary in nature and specific to the type of construction. Future development projects would be subject to compliance with the City's *Municipal Code*, Chapter 8.80, "Storm Water Drainage System", and NPDES requirements.

The purpose of Chapter 8.80 is to effectively prevent non-storm water discharges into the City's storm water drainage system and to specifically achieve the following water quality objectives:

1. Control discharges from spills, dumping or disposal of materials other than storm water;
2. Reduce the discharge of pollutants in all storm water discharges to the maximum extent practicable; and,
3. Protect and enhance the water quality of local, state and federal watercourses, water bodies, ground water and wetlands in a manner pursuant to and consistent with the Clean Water Act;

In addition, construction sites with 1.0 acre or greater of soil disturbance or less than 1.0 acre, but part of a greater common plan of development, would be required to apply for coverage of discharges under the General Construction Permit. As part of its compliance, a Notice of Intent (NOI) would need to be prepared and submitted to the Santa Ana RWQCB providing notification and intent to comply with the General Permit. Prior to grading or construction, a SWPPP would be required for the construction activities on-site. Implementation of recommended mitigation (i.e., compliance with the NPDES requirements) would reduce construction-related impacts to water quality to a less than significant level. Compliance with goals and implementation actions identified in the proposed project would further reduce potential short-term water quality impacts to a less than significant level.

Long-Term Water Quality Impacts

Development associated with implementation of the proposed project would have long-term effects on runoff once development is complete. Runoff from disturbed areas would likely contain silt and debris, resulting in a long-term increase in the sediment load of the storm drain system serving the City. Substances such as oils, fuels, paints, and solvents may be transported to nearby drainages, watersheds, and groundwater in stormwater runoff and wash water. The significance of these water quality impacts would vary depending upon weather conditions, soil conditions, and increased sedimentation of drainage systems within the area.

Any activity or operation in the City associated with the proposed project that could potentially cause or contribute to storm water pollution or a discharge of non-storm water would be required to comply with all applicable Best Management Practices (BMPs) as listed in the *California Storm Water Best Management Practice Handbooks* or the current, San Bernardino County Storm Water Program's *Report of Waste Discharge*, to reduce pollutants in storm water runoff and reduce non-storm water discharges to the City's storm water drainage system to the maximum extent practicable or to the extent required by law.

A Storm Water Quality Management Plan would be required for all future development within the City. The SWQMP shall identify all Best Management Practices (BMPs) that will be

incorporated into the project to control storm water and non-storm water pollutions during and after construction.

Construction BMPs include, but are not necessarily limited to the following:

- Scheduling or limiting activities to certain times of the year
- Prohibiting certain construction practices
- Implementing equipment maintenance schedules and procedures
- Implementing a monitoring program
- Other management practices to prevent or reduce pollution, such as using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils
- Storing materials and equipment to ensure that spills or leaks do not enter the storm drain system or surface waters
- Developing and implementing a spill prevention and cleanup plan
- Installing traps, filters, or other devices at drop inlets to prevent contaminants from entering storm drains
- Using barriers, such as straw bales or plastic, to minimize the amount of uncontrolled runoff that could enter drains or surface water

Operational BMPs include, but are not necessarily limited to the following:

- Controlling roadway and parking lot contaminants by installing oil and grease separators at storm drain inlets
- Cleaning parking lots on a regular basis
- Incorporating peak-flow reduction and infiltration features (such as vegetated swales, infiltration trenches, and vegetated filter strips) into landscaping
- Implementing educational programs
- Utilizing dead storage in detention basins for groundwater infiltration

Future development in the City would increase impervious areas and overall levels of activity. As a result, impacts to stormwater quality would occur. Future development would increase pollutant loadings immediately off the respective development sites and would potentially violate water quality standards. The pollutants that would be expected with future development/redevelopment projects include pollutants typically found in stormwater runoff. Without mitigation, future development would be expected to increase pollutant loadings, including hydrocarbons, fertilizers, pesticides, trash, and sediment.

The specified mitigation requires preparation of a comprehensive Storm Water Quality Management Plan for each future development project. The Plan would be required to include both construction and post-construction, structural and non-structural BMPs, and comply with NPDES permits. New development projects would be required to meet Federal, State, and local water quality standards and implement mitigation (as necessary) to reduce impacts to less

than significant levels. Further, the *General Plan* goals and policies and required mitigation would reduce long-term water quality impacts to less than significant levels.

General Plan Goals and Policies: The following goals and policies address hydrology and water quality.

LAND USE ELEMENT

Goal 2.6 **Control development and the use of land to minimize adverse impacts on significant natural, historic, cultural, habitat, and hillside resources.**

Policy 2.6.3 Capitalize on the recreational and environmental resources offered by the Santa Ana River and Cajon Wash by requiring the dedication and development of pedestrian and greenbelt linkages.

Goal 2.7 **Provide for the development and maintenance of public infrastructure and services to support existing and future residents, businesses, recreation, and other uses.**

Policy 2.7.2 Work with the San Bernardino Valley Municipal Water District to create additional water storage capacity and take advantage of the abundant water supplies.

UTILITIES ELEMENT

Goal 9.3 **Provide water supply, transmission, distribution, storage, and treatment facilities to meet present and future water demands in a timely and cost effective manner.**

Policy 9.3.1 Provide for the construction of upgraded and expanded water supply, transmission, distribution, storage, and treatment facilities to support existing and new development.

Goal 9.4 **Provide appropriate storm drain and flood control facilities where necessary.**

Policy 9.4.1 Ensure that adequate storm drain and flood control facilities are provided in a timely manner to protect life and property from flood hazards.

Policy 9.4.2 Upgrade and expand storm drain and flood control facilities to eliminate deficiencies and protect existing and new development.

Policy 9.4.4 Require that adequate storm drain and flood control facilities be in place prior to the issuance of certificates of occupancy. Where construction of master planned facilities is not feasible, the Mayor and Common Council may permit the construction of interim facilities sufficient to protect present and short-term future needs.

Policy 9.4.5 Implement flood control improvements that maintain the integrity of significant riparian and other environmental habitats.

Policy 9.4.6 Minimize the disturbance of natural water bodies and natural drainage systems.

Policy 9.4.7 Develop San Bernardino's flood control system for multi-purpose uses, whenever practical and financially feasible.

Policy 9.4.8 Minimize the amount of impervious surfaces in conjunction with new development.

Policy 9.4.9 Develop and implement policies for adopting Sustainable Stormwater Management approaches that rely on infiltration of stormwater into soils over detention basins or channels. Sustainable Stormwater Management techniques include use of pervious pavements, garden roofs, and bioswales to treat stormwater, and reusing stormwater for non-potable water uses such as landscape irrigation and toilet/urinal flushing.

Policy 9.4.10 Ensure compliance with the Federal Clean Water Act requirements for National Pollutant Discharge Elimination System (NPDES) permits, including requiring the development of Water Quality Management Plans, Erosion and Sediment Control Plans, and Storm Water Pollution Prevention Plans for all qualifying public and private development and significant redevelopment in the City.

Policy 9.4.11 Implement an urban runoff reduction program consistent with regional and federal requirements, which includes requiring and encouraging the following examples of Best Management Practices (BMPs) in all developments:

- Increase permeable areas, install filtration controls (including grass lined swales and gravel beds), and divert flow to these permeable areas to allow more percolation of runoff into the ground;
- Use natural drainage, detention ponds, or infiltration pits to collect and filter runoff;
- Prevent rainfall from entering material and waste storage areas and pollution-laden surfaces; and
- Require new development and significant redevelopment to utilize site preparation, grading, and other BMPs that provide erosion and sediment control to prevent construction-related contaminants from leaving the site and polluting waterways.

SAFETY ELEMENT

Goal 10.4 Minimize the threat of surface and subsurface water contamination and promote restoration of healthful groundwater resources.

Policy 10.4.1 Promote integrated inter-agency review and participation in water resource evaluation and mitigation programs.

Policy 10.4.2 Protect surface water and groundwater from contamination.

Policy 10.4.3 Eliminate or remediate old sources of water contamination generated by hazardous materials and uses.

Policy 10.4.4 Develop programs and incentives for prevention of groundwater contamination and clean up of known contaminated sites.

Goal 10.5 Reduce urban run-off from new and existing development.

Policy 10.5.1 Ensure compliance with the Federal Clean Water Act requirements for National Pollutant Discharge Elimination System (NPDES) permits, including developing and requiring the development of Water Quality Management Plans for all new development and significant redevelopment in the City.

Policy 10.5.2 Continue to implement an urban runoff reduction program consistent with regional and federal requirements, which includes requiring and encouraging the following:

- Increase permeable areas to allow more percolation of runoff into the ground;
- Use natural drainage, detention ponds or infiltration pits to collect runoff;
- Divert and catch runoff using swales, berms, green strip filters, gravel beds and French drains;
- Install rain gutters and orient them towards permeable surfaces;
- Construct property grades to divert flow to permeable areas;
- Use subsurface areas for storm runoff either for reuse or to enable release of runoff at predetermined times or rates to minimize peak discharge into storm drains;
- Use porous materials, wherever possible, for construction of driveways, walkways and parking lots; and
- Divert runoff away from material and waste storage areas and pollution-laden surfaces such as
- parking lot.

Policy 10.5.3 Cooperate with surrounding jurisdictions and the County to provide adequate storm drainage facilities.

Policy 10.5.4 Require new development and significant redevelopment to utilize site preparation, grading and foundation designs that provide erosion control to prevent sedimentation and contamination of waterways.

Policy 10.5.5 Ensure compliance with the requirements for Storm Water Pollution Prevention Plans or Water Quality Management Plans for all new development or construction activities.

Policy 10.5.6 Coordinate with appropriate federal, state, and local resource agencies on development projects and construction activities affecting waterways and drainages.

Goal 10.6 Protect the lives and properties of residents and visitors of the City from flood hazards.

Policy 10.6.1 Maintain flood control systems and restrict development to minimize hazards due to flooding.

Policy 10.6.2 Use natural watercourses as the City's primary flood control channels whenever feasible.

Policy 10.6.3 Keep natural drainage courses free of obstructions.

Policy 10.6.4 Evaluate all development proposals located in areas that are subject to flooding to minimize the exposure of life and property to potential flood risks.

Policy 10.6.5 Prohibit land use development and/or the construction of any structure intended for human occupancy within the 100-year flood plain as mapped by the Federal Emergency Management Agency (FEMA) unless adequate mitigation is provided against flood hazards.

Policy 10.6.6 Encourage new development to utilize and enhance existing natural streams, as feasible.

Policy 10.6.7 Utilize flood control methods that are consistent with Regional Water Quality Control Board Policies and Best Management Practices (BMPs).

Policy 10.6.8 Review development proposals for projects within the City's Sphere of Influence and encourage the County to disapprove any project that cannot be protected with an adequate storm drain system.

Policy 10.6.9 Ensure major drains in developed areas have a pipeline capacity to comply with the Flood Control District's Comprehensive Storm Drain Plans for development of the City's storm drain system.

Policy 10.6.10 Design local drains in foothill areas to convey 25-year storm flows where downstream systems are lacking and street systems are not present.

Policy 10.6.11 Design major drains in foothill to convey 100-year flows within a pipe or channel areas where downstream systems are lacking and street systems are not present.

Policy 10.6.12 Develop a process to study flooding issues and create appropriate regulations. This could include the creation of "alluvial districts," local quasi-government entities designed to inform homeowners of flood risks as well as advise the floodplain land use decisions of the City.

ENERGY AND WATER CONSERVATION ELEMENT

Goal 13.2 **Manage and protect the quality of the City's surface waters and ground water basins.**

Policy 13.2.1 Coordinate and monitor the City's water conservation efforts on an annual basis and modify or expand them as necessary to ensure their effectiveness.

Policy 13.2.2 Require that development not degrade surface or groundwater, especially in watersheds, or areas with high groundwater tables or highly permeable soils.

Policy 13.2.3 Consider the establishment of incentives, funding programs, or a rebate program for projects that implement water conservation measures, such as replacing aging, leaking, and/or inefficient plumbing with more efficient, water-saving plumbing.

Policy 13.2.4 Require the use of reclaimed water for landscape irrigation and other non-contact uses for industrial projects, golf courses, and freeways.\

Policy 13.2.5 Mitigate degradation of the groundwater basins that may have already occurred by existing commercial, industrial, and other uses.

Policy 13.2.7 Require that new development incorporate improvements to channel storm runoff to public storm drainage systems and prevent discharge of pollutants into the groundwater basins and waterways.

Policy 13.2.8 Require that development in the City's watersheds incorporate adequate landscape and groundcover to prevent slope erosion and significant sedimentation of canyon drainages.

Mitigation Measures:

HYD-1 Prior to the issuance of any grading or building permit, all qualifying land development/redevelopment projects, shall submit and have approved a Storm Water Quality Management Plan (SWQMP) to the City Engineer. The SWQMP shall identify all Best Management Practices (BMPs) that will be incorporated into the project to control storm water and non-storm water pollutants during and after construction and shall be revised as necessary during the life of the project. The SWQMP submittal applies to construction projects covered by the NPDES General Construction Permit as well as construction projects less than one acre in size. Also, a Stormwater Pollution Prevention Plan (SWPPP) shall be reviewed and approved by the City Engineer for water quality construction activities on-site. All recommendations in the Plan shall be implemented during post construction/operation phase. The project applicant shall comply with each of the recommendations detailed in the Plan, and other such measure(s) as the City deems necessary to mitigate potential water quality impacts.

HYD-2 Any developer/owner engaging in construction activities which disturb one acre or more of land shall apply for coverage under the General Storm Water Permit

for Construction Activity with the State Water Resources Control Board (SWRCB). Any developer/owner engaging in construction activities which disturb less than one acre, but are part of a larger common plan of development or sale that is greater than one acre, must also apply for coverage under the General Storm Water Permit for Construction Activity with the State Water Resources Control Board (SWRCB).

"Construction activity" includes, but is not limited to: clearing, grading, demolition, excavation, construction of new structures, and reconstruction of existing facilities involving removal and replacement that results in soil disturbance. The owner of the land where the construction activity is occurring is responsible for obtaining coverage under the permit. Owners may obtain coverage under the General Permit by completing a "Notice of Intent" form (NOI) and mailing the form along with a vicinity map and the appropriate fee to the office of the California State Water Resources Control Board. The NOI form and checklist of items to submit to the state is available from the State Water Resources Control Board in Sacramento, California or from the City's Development Services Department. In addition, the owner shall also prepare a Storm Water Pollution Prevention Plan (SWPPP) in accordance with State requirements.

Prior to obtaining any City-issued grading and/or construction permits the developer/owner shall provide evidence of compliance with the General Construction Permit by providing a copy of the Waste Discharger's Identification Number (WDID) to the City's Community Development Department.

Level of Significance After Mitigation: Less Than Significant Impact.

EROSION AND SILTATION

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD SUBSTANTIALLY ALTER THE EXISTING DRAINAGE PATTERN OF THE SITE OR AREA, INCLUDING THROUGH THE ALTERATION OF THE COURSE OF A STREAM OR RIVER, IN A MANNER WHICH WOULD RESULT IN SUBSTANTIAL EROSION OR SILTATION ON- OR OFF-SITE.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: The proposed project would not significantly alter existing drainage patterns within this part of the City. As part of the proposed project, infrastructure improvements may be constructed which could improve drainage conditions within the Project Area. Implementation of the proposed project could improve drainage conditions within the area affecting future developments as they occur.

Any site development or construction of new facilities has the potential to alter existing drainage patterns, primarily due to runoff from construction activities, increase in impervious surfaces, and vegetation removal. Naturally and artificially induced changes to the characteristics of a drainage basin or floodplain of a stream or river can affect the extent and severity of events that result in erosion and/or siltation.

Short-term construction impacts of runoff due to alteration of existing drainage patterns could be reduced with the implementation of BMPs during planned construction activities on-site. During construction preventative measures, such as sandbag barriers which are typically placed around the perimeter of an area being graded, would be included to prevent dirt and sediment-laden storm runoff from exiting a site. Sandbags could also be placed along swales, at the toe of slopes, and around storm drain inlets to reduce the erosive velocity of storm runoff and to promote the settling of sediment out of the flow. Storm runoff is directed to inlets that are protected by filter fabric to screen out sediment before it enters the storm drain system. For larger areas of disturbed earth, a sediment basin may be installed in which storm runoff ponds allow for the hydrostatic settlement of sediment to occur. An outlet pipe is set at the top of the ponded water for discharge of clean storm water. A stabilized construction entrance usually consists of a layer of heavy gravel that drains well to prevent mud conditions and helps to knock mud off the construction vehicle tires as they exit the site. A wheel wash may also be installed to remove mud from tires.

Long-term impacts of runoff due to alteration of existing drainage patterns would occur as a result of the proposed project. Individual development components, such as paved parking lots, building structures, and rights-of-way would increase the rate and amount of surface runoff. Flows currently received by the Project Area and flows from the Project Area would be directed into County of San Bernardino master plan drainage facilities.

Implementation of BMPs would prevent or minimize impacts to drainage due to runoff and ensure that discharges during the construction and post-construction phase would not cause or contribute to any exceedances of water quality standards in the receiving waters. BMP selection is ultimately guided by the *California Stormwater Best Management Practice Handbooks for Construction Activity*, *American Society of Civil Engineers Urban Runoff Quality Management*, and the *Water Environment Federation Manual of Practice No. 23 and 87*. In addition, a Notice of Intent (NOI) would be prepared and submitted to the RWQCB providing notification and intent to comply with the General NPDES Permit. Preparation and approval of a project-specific SWPPP is also included as mitigation to address construction-related drainage impacts.

In addition to implementation of the mitigation measures identified above, BMPs and regulatory compliance, multiple on-site and off-site infrastructure may be constructed to mitigate the impacts to drainage (refer to Impact Analysis, “Water Quality Standards”). Drainage facilities would contribute to the reduction of pollutants in runoff by allowing sedimentation of particles and infiltration, thus reducing flows as well as pollutant load. The proposed project would mitigate the effect of increased runoff from project development to downstream property owners. Increased runoff would be mitigated with implementation of Mitigation Measures HYD-1 and HYD-2, which would reduce potential impacts to a level of less than significant.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measures HYD-1 and HYD-2. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

POLLUTED RUNOFF

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD CREATE OR CONTRIBUTE RUNOFF WATER WHICH WOULD EXCEED THE CAPACITY OF EXISTING OR PLANNED STORMWATER DRAINAGE SYSTEMS OR PROVIDE SUBSTANTIAL ADDITIONAL SOURCES OF POLLUTED RUNOFF, SUCH AS FROM AREAS OF MATERIAL STORAGE, VEHICLE OR EQUIPMENT MAINTENANCE (INCLUDING WASHING OR DETAILING), WASTE HANDLING, HAZARDOUS MATERIALS HANDLING OR STORAGE, DELIVERY AREAS, LOADING DOCKS, OR OTHER OUTDOOR AREAS.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Within the Project Area, most stormwater is conveyed via street curb and gutters to existing San Bernardino County Flood Control District (SBCFCD) storm drains. The SBCFCD storm drain system generally collects water from streets, pipelines, and Caltrans drains within the Project Area and transports it to the Santa Ana River or its tributaries. The northern and western section of the Project Area is located within SBCFCD Flood Control Zone 2, while the southern and eastern section is located within Zone 3.

The project proposes the consolidation of seven Project Areas into one Project Area. As part of this activity, several storm drain infrastructure improvements may be constructed, which would coincide with other improvements as part of the City's Capital Improvement Program. These improvements will be constructed to reduce existing deficiencies and improve current conditions. In addition, all future developments within the Project Area would be required to comply with all applicable City, County, State, and Federal water quality rules and regulations.

Redevelopment Action 10 in the *Merged, Amended, and Restated Development Plan for the San Bernardino Merged Redevelopment Project Area A* states that the Agency would acquire, install, develop, construct, reconstruct, redesign, plan, re-plan, or reuse streets, curbs, gutters, flood control facilities, and other public improvements and public facilities. This effort would achieve the identified goal of eliminating environmental deficiencies and inadequate public improvements.

Approximately 465 acres of vacant land within the Project Area could potentially be developed with the following (in accordance with the *General Plan*):

- Approximately 3.22 million square feet of commercial and office uses
- Over 500,000 square feet of industrial uses
- 788 multi-family residential units.

In addition to the development of vacant parcels, the development potential of identified redevelopment projects within the Project Area is as follows:

- 667,000 square feet of retail/general commercial use
- 1.49 million square feet of commercial office use

- 300,000 square feet of commercial lodging uses
- 355 multi-family residential units

Future development could result in alterations to the existing drainage patterns of the development sites. Drainage patterns could change slightly due to project-related grading and increases in the amount of impermeable surfaces on the site from structures (i.e., residential, industrial, commercial, and institutional/civic uses) and other ancillary uses (i.e., parking lots, driveways, walkways, etc.). However, the proposed project would not substantially alter existing drainage patterns within the City through the alteration of the course of a stream or river. In addition, the proposed development/redevelopment sites would be serviced by existing stormdrain facilities/ infrastructure. In cases where inadequate infrastructure is available, future developments would be required to construct the necessary infrastructure to support the proposed activity and upgrade any facilities downstream of the development site to ensure adequate stormdrain facilities are available to support existing and new developments.

*General Pla*n goals and policies would further ensure adequate drainage system capacity is available within the City. Mitigation Measure HYD-3 requires new development projects be designed to reduce impacts related to the drainage system capacity to less than significant levels. Thus, drainage and runoff impacts associated with implementation of the proposed project would be reduced to a less than significant level.

In addition, the proposed project as discussed under the Impact Analysis for "Water Quality Standards" would not contribute significant amounts of polluted runoff with implementation of Mitigation Measures HYD-1 and HYD-2. Thus, less than significant impacts related to polluted runoff would occur with implementation of the proposed project.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measures HYD-1 and HYD-2.

HYD-3 Prior to approval of project grading or construction plans, the project owner/developer(s) shall be required to coordinate with the City's Public Works Department to determine requirements necessary to mitigate impacts to drainage improvements required to accommodate storage volumes and flood protection for existing and future runoff. Proposed projects shall implement mitigation measures, if required, to the satisfaction of the City Engineer and Public Works Department.

Level of Significance After Mitigation: Less Than Significant Impact.

DEGRADATION OF WATER QUALITY

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD OTHERWISE SUBSTANTIALLY DEGRADE WATER QUALITY.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: As previously discussed in the Impact Analysis for "Water Quality Standards," the proposed project would provide effective water quality treatment. The implementation of BMPs that filter pollutants from stormwater would reduce impacts to water quality associated with polluted stormwater compared to existing conditions.

City *Municipal Code* regulations and Federal, State, and local water quality standards are in place to protect groundwater resources and surface water quality from construction and post-construction impacts. The implementation of Mitigation Measures HYD-1 through HYD-3 would reduce potential impacts on water quality and stormwater discharge to a less than significant level and reduce pollutants in stormwater discharges from project site to the maximum extent practicable.

However, the Santa Ana RWQCB's Spill, Leaks, Investigation and Cleanup (SLIC) List has identified a number of businesses in the City of San Bernardino that may be contaminated. The property owner/developer would be required to ensure proper environmental analysis and clean-up are conducted prior to development or redevelopment on these sites. In addition, RWQCB, in cooperation with the Office of Emergency Services (OES), maintains an inventory of leaking underground fuel tanks (LUFTs) in a statewide database. Additional discussion regarding impacts associated with SLIC and LUFTs can be found in Section 5.10, Hazards and Hazardous Materials of this EIR and the *General Plan EIR* Hazards and Hazardous Materials Section. All property owners/developers would be required to provide proper environmental analysis and clean-up for sites listed with these conditions prior to development/ redevelopment. With implementation of Mitigation Measures HYD-1 through HYD-3 and HAZ-1, less than significant impacts are anticipated.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measures HYD-1 through HYD-3, and Mitigation Measure HAZ-1. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

HOUSING WITHIN A 100-YEAR FLOOD HAZARD

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD PLACE HOUSING WITHIN A 100-YEAR FLOOD HAZARD AREA AS MAPPED ON A FEDERAL FLOOD HAZARD BOUNDARY OR FLOOD INSURANCE RATE MAP OR OTHER FLOOD HAZARD DELINEATION MAP (PANEL NO. 06071C7930F).**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: According to *General Plan* Figure S-1, portions of the Project Area are located within a 100-year flood hazard area. The placement of temporary or permanent residential structures may occur within these areas upon project implementation.

The City of San Bernardino *Hazard Mitigation Plan* indicates that flooding is an issue within the City of San Bernardino, based on the City's geographical location, topography, and terrain. Moderate to severe flood events typically result in road closure, utility damage, contamination of the potable water supply, mudslides, and extensive property damage. Severe flooding generally requires the evacuation of residents from inundation areas. Past and reasonable foreseeable flooding areas have been delineated based on FEMA flood information and historical data (refer to *Exhibit 5.11-1*). Flooding in San Bernardino is a problem due mainly to the topography of the area and the proximity to the mountains to the north. The mountain drainages can contribute to flash flooding, the most-recent event occurred on Christmas Day in 2003. Most drainages that are tributary to the Santa Ana River within the City have been confined to lined channels where flooding can be reasonably controlled.

The entire City is at risk of seasonal temporary urban flooding. Sections of the City are occasionally prone to urban flooding, especially low lying areas. This occurs because of debris accumulation in storm drains and flood control basins, and overburdened pumping stations and aged drainage systems. Although development associated with implementation of the proposed project would increase impermeable surfaces within the Project Area, the increased potential for urban flooding in the City would not be significant as a majority of the City is considered built-out (80.6 percent).

According to the *General Plan EIR*, development of structures for human occupancy is restricted or prohibited within the 100-year flood zone and critical facilities are restricted or prohibited within the 500-year flood zone, contingent on whether acceptable engineering measures can reduce the flooding hazard. Critical facilities such as schools would be required to have evacuation plans in place that cover the possibility of flooding. Facilities using, storing, or otherwise involved with substantial quantities of on-site hazardous materials would not be permitted in flood zone areas, unless all standards of elevation, anchoring, and flood proofing have been satisfied, and hazardous materials are stored in watertight containers that will not float. Campgrounds and other similar types of activities should also be prohibited in high-risk flood areas, at least during the rainy season.

Although flooding within the Project Area is focused within open space, commercial, and industrial areas within the southern part of the City, a few small areas of residential use may experience some localized flooding during 100 year storm events. However, the proposed project does not include the addition of new residential uses within these areas. In addition, the guidelines developed and enforced through the *Municipal Code*, *Development Code*, Hillside

Management Overlay District, and Building Safety Enhancement Zone are intended to ensure that any real-property projects approved in the City consider mitigation efforts to reduce flooding impacts. With adherence to the *Municipal Code*, the City's *Hazard Mitigation Plan*, *General Plan* goals and policies, and Mitigation Measure HYD-3 impacts related to placement of housing within a 100-year flood hazard area would be reduced to a less than significant level.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measure HYD-3. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

STRUCTURES WITHIN A 100-YEAR FLOOD HAZARD

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD PLACE WITHIN A 100-YEAR FLOOD HAZARD AREA STRUCTURES WHICH WOULD IMPEDE OR REDIRECT FLOOD FLOWS.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: According to *General Plan* Figure S-1, portions of the Project Area are located within a 100-year flood hazard area. Implementation of the proposed project has limited potential to expose people or structures to the risk of flooding due to the confinement of most drainages in flood control devices and land use designations that restrict residential development in flood-prone areas. Flood-prone areas (100-year flood plain) outside of the existing flood control devices are limited to a few isolated areas (as shown in *Exhibit 5.11-1*) that are surrounded by development. Development in these isolated flood-prone areas would increase impervious surfaces, such as asphalt, and reduce the absorption rate of water into the ground, which results in runoff to downstream areas. However, any additional development in these areas would be required to improve the site (such as raising the elevation) and provide on-site storm drain systems to avoid the risk of isolated flooding.

Also, refer to the Impact Analysis for "Housing within a 100-Year Flood Hazard" for impacts related to potential flooding events. With implementation of Mitigation Measure HYD-3, less than significant impacts are anticipated.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measure HYD-3. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

FAILURE OF A LEVEE OR DAM

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD EXPOSE PEOPLE OR STRUCTURES TO A SIGNIFICANT RISK OF LOSS, INJURY OR DEATH INVOLVING FLOODING, INCLUDING FLOODING AS A RESULT OF THE FAILURE OF A LEVEE OR DAM.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: *General Plan* Figure S-2 identifies dam inundation areas within the City as a result of failure of the Seven Oaks Dam upstream. A large portion of the Project Area (Tri-City, South Valle, Meadowbrook/Central City, Central City South, Central City North, Central City East, and Southeast Industrial Park) would be affected if dam failure occurred. People or structures within these areas could be exposed to a significant risk of loss, injury, or death involving flooding as a result of this failure.

However, the Seven Oaks Dam, located upstream of the reach of the Santa Ana River that traverses the City of San Bernardino and Project Area, is designed to provide flood protection during a 350-year event and withstand an 8-plus magnitude earthquake. During flood conditions, the dam would create a pool 500 feet deep extending three miles back into Upper Santa Ana Canyon. In the unlikely event of dam failure, an inundation zone for the Seven Oaks Dam has been determined as shown on *Exhibit 5.11-2*. However, according to the Army Corps of Engineers, this inundated area reflects events of an extremely remote nature as a seismic event large enough to damage the structure would have to occur at the same time as the maximum amount of water is impounded by the dam. The frequency of these two events coinciding at the same time is extremely low. The potential areas of flooding identified in *Exhibit 5.11-2* are based on a failure event at a full pool elevation of 2,580 feet (NGVD). Due to the extremely remote nature of these impacts, the proposed project would result in less than significant impacts in regard to dam failure.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the General Plan are required.

Level of Significance After Mitigation: Not Applicable.

5.11.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN CUMULATIVELY CONSIDERABLE HYDROLOGY, DRAINAGE, AND WATER QUALITY IMPACTS.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: For this topic, the cumulative impacts are analyzed in terms of impacts within the City of San Bernardino, along with impacts to the regional drainage facilities under the jurisdiction of the Santa Ana RWQCB (Region 8).

The proposed project would potentially impact drainage courses and hydrologic flows throughout this portion of the City. However, because the City, which includes the Project Area, is over 80 percent built-out, development resulting from implementation of the proposed project would not significantly increase impermeable surfaces citywide, which would not substantially increase regional drainage flows.

Future development projects in the County or City of San Bernardino would be required to mitigate specific hydrologic and water quality impacts on a project-by-project basis. Additionally, the City's *Municipal Code* incorporates federal and state regulations and guidelines pertaining to storm water runoff to reduce or eliminate regional water quality impacts. Impacts associated with future development resulting from implementation of the proposed project would be addressed at a site-specific level to ensure their cumulative impact would be less than significant. Thus, implementation of the proposed project would not result in cumulatively considerable hydrology or water quality impacts.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measures HYD-1 through HYD-3 and HAZ-1. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

5.11.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Hydrology, drainage, and water quality impacts associated with implementation of the proposed project would be less than significant with compliance with the *General Plan* goals and policies and the recommended mitigation measures. Therefore, no significant unavoidable hydrology, drainage, or water quality impacts would occur as a result of the proposed project.

5.11.7 SOURCES CITED

City of San Bernardino, *Municipal Code*, revised November 2, 2009.

City of San Bernardino, *San Bernardino General Plan*, November 1, 2005.

City of San Bernardino, *San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report* (SCH #2004111132), September 30, 2005.

City of San Bernardino, *Hazard Mitigation Plan*, adopted March 21, 2005.

San Bernardino County Flood Control District, *System Number Index and General File Codes,* updated January 2010.

City of San Bernardino Municipal Water Department*, 2005 Urban Water Management Plan, December 2005.*

Redevelopment Agency of the City of San Bernardino, *Merged, Amended, and Restated Redevelopment Plan for the San Bernardino Merged Redevelopment Project Area A*, February 26, 2010.

Rosenow Spevacek Group, Inc., *Preliminary Report: San Bernardino Merged Area A Merger and Amendments*, April 5, 2010.

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SECTION 5.12
FIRE PROTECTION

5.12 FIRE PROTECTION

This section describes the fire protection services within the City of San Bernardino, including fire protection standards, existing facilities and staffing, mutual aid agreements, services, response times, existing water pressure systems, hazardous fire areas, and the City's insurance classification. The analysis in this section addresses potential impacts to fire protection services associated with the implementation of the proposed project. This section is based on the information obtained from the *General Plan* Public Facilities and Services Element and Safety Element, the *San Bernardino Final General Plan Update and Associated Specific Plans Environmental Impact Report*, the City of San Bernardino website, and the City of San Bernardino Fire Department.

5.12.1 REGULATORY SETTING

FIRE CODE

The City of San Bernardino uses the Uniform Fire Code (UFC), the California Fire Code (CFC) as amended, the California Building Code (CBC), the California Administrative Codes, Title 19 and Title 24, and the National Fire Codes as the basis for its enforcement programs. The UFC establishes the minimum safety standards for fire flow and water supply, road width, access, and turning radius for fire apparatus. The CFC establishes the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises, and to provide safety and assistance to fire fighters and emergency responders during emergency operations. The CBC is generally consistent with the UFC, with additional guidance and language specific to conditions germane to the State of California. Chapter 8.60 Fireworks, 8.61 Prohibited Fireworks, and 8.63 Explosives and Fires of the *San Bernardino Municipal Code* identify regulations regarding the sale and possession of fireworks, protection strategies, and standards and legalities involving explosives and fires. Along with these codes, the City has adopted more stringent fire regulations in the areas of building construction.[1]

5.12.2 ENVIRONMENTAL SETTING

FIRE PROTECTION AGENCIES

The San Bernardino City Fire Department (SBCFD) services the City of San Bernardino, which includes the proposed project. The SBCFD serves a resident population of approximately 202,000 and covers a diverse service area of 59.3 miles. The service area includes 19 miles of wildland interface area, an international airport, a major rail yard, the County Seat, a jail, two major mall complexes, and three major interstate freeways (10, 210, and 215).[2] Unincorporated areas within the City receive fire protection and Emergency Medical Services (EMS) delivery from the Central Valley Fire District (CVFD) or the California Department of Forestry and Fire

[1] City of San Bernardino General Plan, Chapter 7, Public Facilities and Services Element, prepared by The Planning Center, dated November 1, 2005.

[2] City of San Bernardino Fire Department website, https://www.ci.san-bernardino.ca.us/depts/fire/sbfd_facts.asp, accessed March 2, 2010.

Protection (CAL FIRE). San Bernardino County contracts with CAL FIRE for fire protection in areas not covered by other fire departments.[3]

CAL FIRE is responsible for the remaining unincorporated areas, including the unincorporated island within the City limits. CAL FIRE has three fire stations in the area: a station at Baseline and Central in Highland, which is responsible for the City of Highland, a station at 38th Street and Sierra Way in the City, and a station on Cajon Boulevard, at the Devore off-ramp in the northwest portion of the City.

FACILITIES AND STAFFING

The SBCFD staffs 12 fire engine companies, two aerial truck companies, one heavy rescue, five four-wheel drive brush engines, one hazardous material response rig, and one medic squad housed in 12 stations throughout the City of San Bernardino; refer to *Table 5.12-1 City of San Bernardino Fire Stations and Characteristics*. The Fire Chief's office is at the center of the Fire Administration. The total number of Emergency Operations Personnel is 161 divided among three platoons. The current "On-Duty" strength per shift (total number of personnel available to respond to emergencies including two battalion Chief Officers) is 53 spread among the 14 companies.[4] The minimum staffing level is 48 fire fighters and two chief officers 24 hours a day.[5] The average personnel work week is 56 hours.[6]

MUTUAL AID AGREEMENT[7]

In addition to stations within the SBCFD, all fire departments in the State are signatory to a master mutual aid agreement. The agreement was established to provide assistance for major incidents and emergencies. The agreement states in part that "political subdivision will reasonably exhaust local resources before calling for outside assistance." In addition to a master mutual aid agreement, the SBCFD has joint response agreements between the neighboring cities of Rialto, Colton, and Loma Linda, where units in these cities respond in the event of a multi-unit fire. The SBCFD also contracts with the County of San Bernardino to provide service for portions of Riverside County; refer to *Table 5.12-1* above.

3 City of San Bernardino General Plan, Chapter 7, Public Facilities and Services Element, prepared by The Planning Center, dated November 1, 2005.
4 City of San Bernardino Fire Department website, https://www.ci.san-bernardino.ca.us/depts/fire/sbfd_facts.asp, accessed March 2, 2010.
5 City of San Bernardino Fire Department, Chief Michael J. Conrad, letter correspondence, December 2009.
6 City of San Bernardino Fire Department website, https://www.ci.san-bernardino.ca.us/depts/fire/sbfd_facts.asp, accessed March 2, 2010.
7 Final General Plan Update and Associated Specific Plans EIR, Public Services, prepared by The Planning Center, dated September 30, 2005.

Table 5.12-1
City of San Bernardino Fire Stations and Characteristics

Name	Location	Equipment/Personnel[1]
Fire Station Main 221 (Administration)	200 E. 3rd Street **(Located within Central City East)**	Medic Engine (3 staff) Aerial Ladder Truck (4) Battalion Command Vehicle (1) Air/Light Truck (staff as needed)
Station 222	1201 W. 9th Street **(East of Central City North)**	Medic Engine (4)
Station 223	2121 Medical Center Drive	Medic Engine (4) Brush Engine (staff as needed)
Station 224	2641 N. E Street	Medic Engine (3) Aerial Ladder Truck (4) Battalion Command Vehicle (1)
Station 225	1640 W. Kendall Drive	Medic Engine (3) Brush Engine (staff as needed)
Station 226	1920 N. Del Rosa Avenue	Medic Engine (4)
Station 227	282 W. 40th Street	Medic Engine (4)
Station 228	3398 E. Highland Avenue	Medic Engine (3) Brush Engine (staff as needed)
Station 229	202 N. Meridian Avenue	Medic Engine (3)
Station 230	502 S. Arrowhead Avenue **(Located within Central City South)**	Medic Engine (4) Brush Engine (staff as needed) Heavy Rescue Unit (staff as needed)
Station 231	450 E. Vanderbilt Drive **(Located within Tri-City)**	Medic Engine (3) HazMat Unit (staff as needed)
Station 232	6065 Palm Avenue	Medic Engine (4) Brush Engine (staff as needed)
Station 233	165 S. Leland Norton Way	2 each: • 1500 Gallon ARFF Units (staff as needed) • Quick Attack Unit (staff as needed)
Additional Units Provided by Mutual Aid Agreement		
San Manuel Station 241	26540 Indian Service Road	Medic Engine (4) Medic Quint (4) Battalion Command Unit (1)
USDA Station 36	2586 Hillview Road	Brush Engine (5 seasonal)
County Station 75	2156 W. Darby Street	Engine (3)
County Station 2	1511 Devore Road	Engine (3)

Source: City of San Bernardino Fire Department website, https://www.ci.san-bernardino.ca.us/depts/fire/stations.asp, accessed March 2, 2010.
1. *Final General Plan Update and Associated Specific Plans Environmental Impact Report*, Section 5.12 Public Services, Table 5.12-1, Page 5.12-2, prepared by The Planning Center, dated September 30, 2005.

SERVICES

Besides fire protection services, the SBCFD includes a Fire/Arson Investigation Unit, Hazardous Materials Team, Disaster Preparedness Services, and Urban Search and Rescue (USAR). The Investigations Unit has ten personnel staff consisting of a senior investigator and nine other personnel certified as investigators, with all members of the unit holding peace office status. Members of the unit participate on a volunteer basis with 100 hours of on-scene training. The Hazardous Materials Response Team handles hazardous materials leakage, discharge, dumps, spills, and emissions within the City. The Disaster Preparedness Office, created by the City's Municipal Code, Chapter 2.46, is a division of the SBCFD. Under the direction of the Fire Chief, a major activity of the Disaster Preparedness Office is the development and approval of integrated emergency response plans for the City.[8] The Department's USAR personnel are highly trained in and perform all technical rescues in the City, as well as surrounding areas when requested. Technical rescues include low-angle rope rescue, high-angle rope rescue, vehicle extrication, confined space rescue, trench rescue, swift water rescuer operations, structural collapse search and shoring, and forcible entry. USAR also includes the Rapid Intervention Crew. This crew is a special team that is comprised of two or more firefighters dedicated solely to search and rescue of other firefighters in distress.[9]

RESPONSE TIMES

Response time for a unit varies and depends on the location of the response site. However, the City's adopted response time standard is five minutes or less for 90 percent of the emergency calls for service. The response time is measured from when the responding unit goes in route to the call, to when the unit arrives on the scene of an emergency.[10,11]

The Fire Department responded to 28,171 life and property threatening emergency incidents during the 2008 calendar year. Of these, 4,311 were fire and other types of alarms. The SBCFD responded to 23,790 medical emergencies during the same time, and processed an additional 4,116 Emergency Medical Dispatch (EMD) responses.[12]

WATER PRESSURE SYSTEM[13]

The water pressure system that supplies emergency water for fire services is comprised of three separate, interconnected systems: a lower, an intermediate, and an upper system. These are a combination of booster and gravity pump systems that transport water up elevation differences in order to maintain adequate water pressure. Water is obtained from 35 wells using 35 turbine pumps and released into the system using 44 booster pumps and approximately 422 miles of water mains. Twenty-one reservoirs, having total water storage of approximately 75 million gallons, are in use and there is a total production capability of about 71 million gallons per day.

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8 Final General Plan Update and Associated Specific Plans EIR, Public Services, prepared by The Planning Center, dated September 30, 2005.

9 City of San Bernardino Fire Department website, https://www.ci.san-bernardino.ca.us/depts/fire/emergency_operations/urban_search_n_rescue.asp, accessed March 2, 2010.

10 Final General Plan Update and Associated Specific Plans EIR, Public Services, prepared by The Planning Center, dated September 30, 2005.

11 City of San Bernardino Fire Department, Chief Michael J. Conrad, letter correspondence, December 2009.

12 City of San Bernardino Fire Department website, https://www.ci.san-bernardino.ca.us/depts/fire/sbfd_facts.asp, accessed March 2, 2010.

13 Ibid.

The SBCFD has access to over 3,000 fire hydrants that are owned by various water districts throughout the City. The SBCFD does not own the fire hydrants.

HAZARDOUS FIRE AREAS

The SBCFD is a member of the Inland Empire Fuels and Management Alliance. This is a nine-member alliance developed to identify specific projects pertaining to vegetation management and wild land fuel reduction within San Bernardino and Riverside Counties. Each member participates in projects to prevent and minimize fire threats in and around their respective communities.

As the foothill areas adjacent to the San Bernardino Mountains are considered hazardous fire areas, the City has created a Foothill Fire Zone Overlay District. Within the District, the City identifies three foothill fire zones that have different degrees of hazard based on slope, natural barriers, and type of fuel present. The foothill fire zones are: A – Extreme Hazard, B – High Hazard, and C – Moderate Hazard. Fire Zone A includes areas with slopes of 30 percent or greater. Fire Zone B includes areas with slopes between 15 to 30 percent. Fire Zone C includes those areas with slopes of 0 to 15 percent. The proposed project is not located within hazardous fire areas.[14] Furthermore, according to State Fire Hazard Severity Mapping, the Project Areas are not located in very high fire hazard severity zones.[15]

Urban and Wildland Fires

Fires in undeveloped areas result from the ignition of accumulated brush and woody materials, and are appropriately termed “wildland fires.” Such fires can burn large areas and cause a great damage to both structures and valuable open space land. Urban fires usually result from sources within the structures themselves. Fire hazards of this type are related to specific sites and structures, and availability of fire fighting services is essential to minimize losses.

In urban areas, the effectiveness of fire protection efforts is based upon several factors, including the age of structures, efficiency of circulation routes that affect response times, and availability of water resources to combat fires. In wildland areas, taking the proper precautions, such as the use of fire resistant building materials, can protect developed lands from fires and, therefore, reduce the potential loss of life and property.

The City is susceptible to wildland fires due to steep terrain and highly flammable chaparral vegetation of the foothills of the San Bernardino Mountains and high winds that correspond with seasonal dry periods. The characteristics of the San Bernardino Mountains and winds in the area indicate that large uncontrollable fires on a recurring basis are inevitable.

The danger from wildland fires in the foothill locations is increased by the number of structures and encroachment of new development in the hillside areas. Specific concerns include the density of development, spacing of structures, building materials, access to buildings by fire equipment, adequacy of evacuation routes, property maintenance, brush clearance, and water availability. The capacity of the water systems to provide sufficient water to fight fires is a significant issue.

[14] City of San Bernardino Fire Department website, https://www.ci.san-bernardino.ca.us/depts/fire/sbfd_facts.asp, accessed March 2, 2010.

[15] CAL FIRE Very High Fire Hazard Severity Zones in LRA, as recommended by CAL FIRE, November 13, 2008.

The U.S. Department of Forestry has records of wildland fires dating back to the beginning of the 20th century. The data indicates that fires occur on a regular basis almost every year and that very large fires occur approximately every ten years. According to the Department of Forestry, the large fires correspond to the age of the vegetation which, if not burned regularly, begins to accumulate dead material that is easily ignited and spreads fire faster than younger growth. Consequently, a decade can pass with few fires followed by a decade with several large fires. The occurrence of the largest fires also corresponds to periods of extremely high wind conditions. The large fires that are spread by winds periodically approaching and exceeding 90 to 100 miles per hour (mph) are considered uncontrollable by the California Department of Forestry and U.S. Forest Service. Other areas in southern California are being burned off periodically by way of controlled burns to remove aging vegetation. The controlled burn process is used very carefully in the San Bernardino Mountains because of the unpredictability and force of the winds in the area that could make controlled burns a potential hazard.[16] Furthermore, according to State Fire Hazard Severity Mapping, the Project Areas are not located in very high fire hazard severity zones.[17]

INSURANCE CLASSIFICATION

The Insurance Service Office (ISO) Grading Schedule is a means of classifying cities with reference to their physical conditions and fire defenses. The insurance classification developed under the schedule is only one of several elements used in development of fire insurance rates.[18] The ISO rating for the City is Class 3. The ISO rating is based on a scale from one to ten, with Class 1 being the best. In most insurance rates, the fire insurance costs are the same for single-family residential structures in the Class 2 through 4 rating. Multiple residential, commercial, and industrial insurance costs can be substantially affected by ISO ratings.[19]

5.12.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to fire protection. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or result in the need for new or physically altered governmental facilities, the construction of which may cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives.

[16] City of San Bernardino General Plan, Chapter 7, Public Facilities and Services Element, prepared by The Planning Center, dated November 1, 2005.
[17] CAL FIRE Very High Fire Hazard Severity Zones in LRA, as recommended by CAL FIRE, November 13, 2008.
[18] Final General Plan Update and Associated Specific Plans EIR, Public Services, prepared by The Planning Center, dated September 30, 2005.
[19] Ibid.

Based on these significance standards, the effects of the proposed project have been categorized as either "no impact," a "less than significant impact," or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a "significant unavoidable impact."

5.12.4 PROJECT IMPACTS AND MITIGATION MEASURES

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN THE NEED FOR ADDITIONAL FIRE PROTECTION SERVICES.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: Implementation of the proposed project would result in the addition of 1,833 dwelling units, 6,122 persons, 6,200,590 square feet of non-residential development, and 16,601 jobs beyond existing conditions.

The additional 1,833 dwelling units represents approximately 2.5 percent of the projected 73,367[20] households, and the resulting 6,122 persons represents approximately 2.2 percent of the projected 276,264[21] population at buildout of the *General Plan* for Horizon Year 2030. The additional 16,601 jobs represents approximately 4.9 percent of the projected 338,712[22] employment at buildout; refer to Section 5.2, Population, Employment, and Housing.

Future development associated with the proposed project would result in an increased demand for fire protection services within the Project Area. The future development within the Project Area is anticipated to result in increased calls and demands for fire protection services, which may create a need for additional fire protection services, personnel, and/or facilities. Additionally, implementation of the proposed project may result in increased response times due to the associated increase in redeveloped area. Indicators for the need to have additional personnel and facilities include response times, incident load, population, and square footage of developments. Response times are dependent on a combination of factors, including the geographic distribution of land uses and personnel level to population served. Although future development associated with the proposed project would occur in an urban area currently adequately served by the SBCFD, response times may increase if adequate personnel levels or facilities are not provided.

In order to determine if additional fire protection personnel and/or facilities are needed to maintain adequate levels of service, including response times, new development projects would be reviewed by the SBCFD on a project-by-project basis to determine project specific impacts to fire protection services. Individual projects would be reviewed by SBCFD to determine the specific fire requirements applicable to the individual development and ensure compliance with these requirements. Compliance with measures established by Federal, State, and local regulations would reduce fire protection impacts to less than significant.

[20] Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report, prepared by The Planning Center, dated September 30, 2005.
[21] Ibid.
[22] Ibid.

The SBCFD has indicated that the current fire protection staff levels and facilities in the City of San Bernardino are adequate for the existing development and land uses.[23] The SBCFD does not anticipate that implementation of the proposed project would result in the need for new fire protection facilities.[24] The SBCFD also anticipates that the required fees and taxes provided by new development associated with the proposed project would adequately mitigate the expected increase in fire and emergency medical service demand.[25] Furthermore, the anticipated growth has been planned for within the *General Plan* and permitted land uses within the Project Area would be those permitted by the *General Plan*. The *General Plan* Public Facilities and Services Element and Safety Element includes goals and policies to provide fire protection services. Compliance and/or adherence to the *General Plan* goals and policies would reduce impacts to fire protection services to a less than significant level.

General Plan Goals and Policies:

PUBLIC FACILITIES AND SERVICES ELEMENT

Goal 7.2 **Protect the residents and structures of San Bernardino from the hazards of fire.**

Policy 7.2.1 Assure that adequate facilities and fire service personnel are maintained by periodically evaluating population growth, response time, and fire hazards in the City.

Policy 7.2.2 Assess the effects of increases in development density and related traffic congestion on the provision of adequate facilities and services ensuring that new development will maintain fire protection services of acceptable levels.

Policy 7.2.3 Establish a program whereby new development projects are assessed a pro rata fee to pay for additional fire service protection to that development.

SAFETY ELEMENT

Goal 10.11 **Protect people and property from urban and wildland fire hazards.**

Policy 10.11.1 Continue to conduct long-range fire safety planning efforts to minimize urban and wildland fires, including enforcement of stringent building, fire, subdivision and other Municipal Code standards, improved infrastructure, and mutual aid agreements with other public agencies and the private sector.

Policy 10.11.4 Study the potential acquisition of private lands for establishment of greenbelt buffers adjacent to existing development, where such buffers cannot be created by new subdivision.

[23] City of San Bernardino Fire Department, Chief Michael J. Conrad, letter correspondence, December 2009.
[24] City of San Bernardino Fire Department website, https://www.ci.san-bernardino.ca.us/depts/fire/sbfd_facts.asp, accessed March 2, 2010.
[25] Ibid.

Policy 10.11.5 Continue to require that all new construction and the replacement of 50 percent or greater of the roofs of existing structures use fire retardant materials.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the General Plan are required.

Level of Significance After Mitigation: Not Applicable.

5.12.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO FIRE PROTECTION SERVICES.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: Implementation of the proposed project has the potential to create a significant impact on fire protection services. Response times may increase as a result of increased development and population. However, future development projects would be evaluated by the City of San Bernardino and the San Bernardino Fire Department on a project-by-project basis to determine potential impacts to fire protection services. Future development projects would be required to comply with all applicable fire code and ordinance requirements for construction, access, water mains, fire flows, and hydrants. Individual projects would be reviewed by the City and SBCFD to determine the specific fire requirements applicable to the specific development and to ensure compliance with these requirements. Compliance with measures established by Federal, State, and local regulations would reduce fire protection impacts to less than significant. In addition, adherence to the *General Plan* goals and policies would further reduce impacts resulting from the proposed project to a less than significant level. As such, implementation of the proposed project would not result in cumulatively considerable fire protection impacts.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the General Plan are required.

Level of Significance After Mitigation: Not Applicable.

5.12.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Fire protection impacts would be less than significant with compliance with *General Plan* goals and policies. Therefore, no significant unavoidable fire protection impacts would occur as a result of the proposed project.

5.12.7 SOURCES CITED

CAL FIRE Very High Fire Hazard Severity Zones in LRA, as recommended by CAL FIRE, November 13, 2008.

City of San Bernardino General Plan, Chapter 7, Public Facilities and Services Element, prepared by The Planning Center, dated November 1, 2005.

City of San Bernardino General Plan, Chapter 10, Safety Element, prepared by The Planning Center, dated November 1, 2005.

City of San Bernardino Fire Department, Chief Michael J. Conrad, letter correspondence, December 2009.

City of San Bernardino Fire Department website, https://www.ci.san-bernardino.ca.us/depts/fire/sbfd_facts.asp, accessed March 2, 2010.

Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report, prepared by The Planning Center, dated September 30, 2005.

SECTION 5.13
POLICE PROTECTION

5.13 POLICE PROTECTION

This section describes law enforcement services within the City of San Bernardino, including police protection standards, existing facilities, personnel levels, programs, service calls, response times, and crime statistics. The analysis in this section addresses potential impacts to police protection services associated with implementation of the proposed project. This section is based on the information obtained from the *General Plan* Public Facilities and Services Element, the *San Bernardino Final General Plan Update and Associated Specific Plans Environmental Impact Report*, the City of San Bernardino website, and the City of San Bernardino Police Department.

5.13.1 REGULATORY SETTING

CALIFORNIA PENAL CODE

The California Penal Code establishes the basis for the application of criminal law in California.

STRATEGIC PLAN[1]

The City of San Bernardino Police Department (Police Department) developed a Strategic Plan to help anticipate change and guide the future of the Department. The plan is divided into three parts: service to the community, service to the employees, and to ensure adequate resources. Six different fundamental strategic issues detailed in the actual report are the foundation for the Police Department's future. The six fundamental strategic issues include: ensure adequate staffing; institute innovative workload management; realign organization structure; support employees; upgrade organizational infrastructure; and enhance the Department's image. The Police Department prepares a report each year outlining the Department's performance in meeting the goals from the prior year.

BEAT PLAN[2]

The Police Department implemented the "21 Beat Plan" on January 19, 2004. The ultimate goal of the Beat Plan was to grow existing staffing through 2009 as framed by the Strategic Plan. Careful analysis was configured of the "radio car beat" within each district to ensure geographic boundaries and natural neighborhoods were encompassed within one service area.

[1] San Bernardino Police Department 2004-2009 Strategic Plan, http://www.ci.san-bernardino.ca.us/civica/filebank/blobdload.asp?BlobID=2119 and the 2004-2009 Strategic Plan Progress, The First Twelve Months and Second Year Goals and Objectives, https://www.ci.san-bernardino.ca.us/civica/filebank/blobdload.asp?BlobID=2120, City of San Bernardino Police Department.

[2] San Bernardino Police Department Management Paper, Beat Plan, http://www.ci.san-bernardino.ca.us/civica/filebank/blobdload.asp?BlobID=5297, dated January 14, 2004.

5.13.2 ENVIRONMENTAL SETTING

POLICE PROTECTION AGENCIES[3]

The Police Department provides police protection services in the City of San Bernardino. Police services provided include patrol, traffic enforcement, investigations, forensics, school resource officer, and community service offices. The Police Department operates under a mutual aid agreement with police agencies in the surrounding cities. This allows use of up to 50 percent of adjacent agency resources upon request and for automatic response within zones of mutual aid.

The unincorporated portions of the City are provided police services from the San Bernardino County Sheriff's Department. The County Sheriff operates from an office in the City. The Sheriff's Department and the Police Department provide mutual backup services upon request within both the City and unincorporated areas.

The California Highway Patrol in the City provides traffic patrol on State Highways and also on roads within the unincorporated areas of the County. The Highway Patrol also provides emergency response backup to the Police Department and the County Sheriff upon request. The Highway Patrol office is located within the corporate limits of the City.

FACILITIES

The Police Department's central headquarters facility and jail is located at 710 North D Street, within the Central City North boundaries of the Project Area. The City is also served by six community service offices that serve five designated geographical patrol districts; refer to *Table 5.13-1*, *San Bernardino Police Department Community Service Offices*.

Table 5.13-1
San Bernardino Police Department Community Service Offices

Patrol Area	Location
Western District (Area A)	1574 Baseline Street, #103 **(Located north of Tri-City)**
	1332 W. 5th Street **(Located west of Central City North)**
Northern District (Area B)	941. W. Kendall Drive
Eastern District (Area C)	1535 E. Highland Avenue, Suite C
Central District (Area D)	334 W. Baseline **(Located north of Central City North and Central City East)**
Southern District (Area E)	204 Inland Center **(Located within Central City South)**

Source: *City of San Bernardino General Plan*, Chapter 7, Public Facilities and Services Element, Page 7-4, dated November 1, 2005.

[3] *City of San Bernardino General Plan*, Chapter 7, Public Facilities and Services Element, prepared by The Planning Center, dated November 1, 2005.

According to the Police Department, existing facilities are adequate to meet the needs of the City residents. However, the Police Department is currently looking at expansion in various parts of the City for both the Police Department substations and training facilities.[4]

PERSONNEL

The Police Department includes 312 sworn officers and another 150 civilian support staff members who do a variety of service-oriented tasks so that sworn personnel can focus on law enforcement related duties.[5] A larger portion of the Project Area is within the Southeast District of the Police Department, while a smaller portion is within the Southwest District. A total of 112 law enforcement officers serve the Project Area; refer to *Table 5.13-2*, *Law Enforcement Officers Serving the Project Area*.

Table 5.13-2
Law Enforcement Officers Serving the Project Area

Law Enforcement Officers	Southwest District – "A"	Southeast District – "D"	Total
Patrol Officers	35	36	71
Patrol Sergeants	6	7	13
CIT Officers	6	6	12
CIT Sergeants	1	1	2
DROs	3	3	6
Parole Coordinator	1	1	2
Phoenix Officer	1	1	2
Detective	1	1	2
Operation Sergeant	1	1	2
Total	**55**	**57**	**112**

Notes:
CIT – Crime Impact Team – Patrols 4 days a week and targets high crime and problem areas within their district.
DRO – District Resource Officer – One Officer assigned to each district responsible for investigating unique crimes within their district.
Parole Coordinator – Officer assigned to coordinate parole compliance checks and programs with State Parole Office.
Phoenix Officer – Officer assigned as part of the City's Operation Phoenix program designed to reduce crime and violence through prevention, intervention, and suppression initiatives.
Detective – Detective assigned to each district responsible for investigation of major crimes within each district.
Operation Sergeant – Sergeant assigned to each district responsible for administrative duties and assignments from District Lieutenant.

Source: City of San Bernardino Police Department, Paul Guillen, Police Communications Manager, letter correspondence, November 23, 2009.

The Police Department does not have an established staffing level based on personnel per population. The Police Department has been authorized for up to 350 sworn officers, which is adequate to police the City limits. The Police Department's staffing levels are based on service models, not population. The existing staff levels are adequate to meet the needs of the San Bernardino residents.[6]

4 City of San Bernardino Police Department, Mark A. Garcia, Assistant Chief of Police, letter correspondence, December 16, 2009.
5 City of San Bernardino Police Department website, https://www.ci.san-bernardino.ca.us/depts/police_department/about_sbpd/about_sbpd/default.asp, accessed February 23, 2010.
6 City of San Bernardino Police Department, Mark A. Garcia, Assistant Chief of Police, letter correspondence, December 16, 2009.

The Police Department consists of three divisions: Patrol, Investigations, and Administrative Services. Each division includes specialized units comprised of a variety of trained personnel and services.

Patrol Division: The Patrol Division provides general law enforcement services. Uniformed officers and community service officers respond to approximately 1,000 calls-for-service every 24 hours. Specialized law enforcement services such as canine officers, traffic officers, and bicycle-mounted enforcement officers are part of the Patrol Division. The City Council authorized a reorganization plan that divided the Patrol Division into two divisions (Northern Division and Southern Division) on July 16, 2008.[7]

Investigations Division: The Investigations Division has two bureaus. The Investigations Bureau is made up of several units of detectives. The Specialized Crimes Unit, District Crimes Unit, Burglary, and Robbery Units are all supervised by tenured sergeants. The entire bureau is led by a police lieutenant who is responsible for managing the complex investigative workload of the team. The Special Enforcement Bureau is made up of the Homicide Unit, Multiple Enforcement Team, and Narcotics Unit. The Special Enforcement Bureau is also managed by a police lieutenant.[8]

Administrative Services Division: This division provides all of the support services needed to manage a staff of over 450 employees. The Personnel and Training Unit coordinates all of the Police Department's personnel issues and hosts a variety of departmental training programs. The Communications Center serves as the primary Public Safety Answering Point (PSAP) for the City. All of the Police Department's enforcement records are maintained in the Records Bureau. Financial and payroll services are provided by the Department's Financial Services Unit. Automation and communications equipment are maintained by the Information Technology Division's Public Safety Systems Group, which is located at the main police facility.[9]

The Special Weapons and Tactics Team (SWAT) offers immediate response to threats or perceived threats to the public safety. The SWAT team is on-call 24-hours a day, seven days a week, and assists other units to conduct arrest and search warrants.

VOLUNTEER, TRAINING, AND OTHER PROGRAMS

The Police Department offers volunteer opportunities and training. Volunteer police officers perform many of the same tasks as the full-time officers, including powers of arrest. The Citizen Patrol program involves members of the community in deterring crimes and to help officers in such areas as traffic control, crime prevention programs, extra patrols, citation writing, and vacation checks. The volunteers are able to assist the Community Service Officers after going through a three-month training. In addition to Citizen Patrol, Specialized Volunteers are involved in areas of detective bureau, traffic bureau, identification bureau, firing range, translation, property and evidence, crime free rental housing, and personnel and training.[10]

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7 City of San Bernardino Police Department website, https://www.ci.san-bernardino.ca.us/depts/police_department/about_sbpd/the_divisions/default.asp, accessed February 23, 2010.

8 Ibid.

9 Ibid.

10 *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

Additional programs offered by the Police Department for community development and crime prevention include the Chaplain's Program, Explorer Post, Operation Phoenix, San Bernardino Taking Action Against Graffiti, the National Office of Traffic Safety Program, Mothers Against Drunk Driving, Operation Lifesaver, and the Amber Alert. The Chaplain's Program and Cops and Clergy represent the integration of faith and justice. The Police Department uses such means to share their knowledge with the population through faith-based organizations. This is also an opportunity for police officers to interact with troubled population in an informal setting. The Explorer Post program offers adolescents between ages 14 and 21 a chance to interact positively with police officers and to receive training in law enforcement. The program also teaches responsibility, discipline, self-esteem, teamwork, and ethics.[11] The Operation Phoenix program was designed to reduce crime and violence through prevention, intervention, and suppression initiatives. The program is managed by the City's Phoenix Officer.[12] San Bernardino Taking Action Against Graffiti (SB TAAG) is a multi-faceted partnership of City departments and local agencies. The mission of SB TAAG is to eliminate graffiti in San Bernardino through eradication, enforcement, and education to create a more beautiful City.[13] Annually during May and June the Police Department unites with other law enforcement agencies nationwide under a National Office of Traffic Safety Program to provide saturation enforcement focus on seatbelt and child safety seat violations.[14] The City also participates in Mothers Against Drunk Driving (MADD). While MADD is not a governmental DUI prevention program, it is a program that focuses attention on the need to prevent drunk driving.[15] The City is also involved with Operation Lifesaver. Operation Lifesaver is a non-profit, international continuing public education program first established in 1972 to end collisions, deaths, and injuries at places where roadways cross train tracks, and on railroad rights-of-way.[16] The City also offers Amber Alerts to the citizens. Amber Alert empowers law enforcement, the media, and the public to combat abduction by sending out immediate, up-to-date information that aids in the child's safe recovery. Using television, radio, the internet, highway information signs, and even cell phone networks, Amber Alert gives the public the information needed to locate abducted children. Within the City of San Bernardino, Amber Alert is coordinated by the California Highway Patrol.[17]

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11 *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

12 City of San Bernardino Police Department, Paul Guillen, Police Communications Manager, letter correspondence, November 23, 2009.

13 City of San Bernardino Police Department website, https://user.govoutreach.com/sanbernardino/faq.php?cid=9022, accessed February 24, 2010.

14 City of San Bernardino Police Department website, http://www.ci.san-bernardino.ca.us/depts/police_department/traffic_safety_programs/click_it_or_ticket.asp, accessed February 24, 2010.

15 City of San Bernardino Police Department website, http://www.ci.san-bernardino.ca.us/depts/police_department/traffic_safety_programs/madd.asp, accessed February 24, 2010.

16 City of San Bernardino Police Department website, http://www.ci.san-bernardino.ca.us/depts/police_department/traffic_safety_programs/operation_lifesaver/default.asp and the Operation Lifesaver website, http://www.oli.org/about/about_overview.htm, accessed February 24, 2010.

17 City of San Bernardino Police Department website, http://www.ci.san-bernardino.ca.us/depts/police_department/amber_alerts/default.asp, accessed February 24, 2010.

SERVICE CALLS

Police calls for service within the Project Area for the years 2006 through October 31, 2009 were provided by the Police Department; refer to *Table 5.13-3*, *Police Calls for Service*.

Table 5.13-3
Police Calls for Service

Project Area	Year 2006	Year 2007	Year 2008	Year 2009 (through 10/31/09)	Total
Citywide	99,265	97,592	94,764	76,949	368,570
Central City North	4,315	4,247	3,909	2,469	14,940
Southeast Industrial Park	1,506	1,411	1,204	933	5,054
Tri-City	1,131	1,114	983	739	3,967
South Valle	983	1,019	956	783	3,741
Meadowbrook/Central City Projects	2,048	1,870	1,963	1,614	7,495
Central City East	1,069	1,033	980	867	3,949
Central City South	1,792	1,408	1,392	944	5,536
Total:	112,109	109,694	106,151	85,298	**413,252**

Source: City of San Bernardino Police Department, Paul Guillen, Police Communications Manager, letter correspondence, November 23, 2009.

According to *Table 5.13-3*, the Project Area with the highest volume of police calls for service from the year 2006 through October 31, 2009 was the Central City North with 14,940 calls. The Project Area with the lowest volume of police calls for service was South Valle with 3,741. As indicated in *Table 5.13-3*, police calls for service have decreased over time since the year 2006.

RESPONSE TIMES[18]

The Police Department has established the target response times for emergency calls within all areas of the City. The target response time for emergency calls is six minutes or less, which is consistent with industry standards. The most recent report shows the average response time is 5.62 minutes for emergency calls.

CRIME STATISTICS

The incidence of citywide crime for both property crimes and violent crimes for the years 2006 through 2008 were provided by the City of San Bernardino Police Department; refer to *Table 5.13-4*, *Citywide Crime Stats*.

[18] City of San Bernardino Police Department, Mark A. Garcia, Assistant Chief of Police, letter correspondence, December 16, 2009.

Table 5.13-4
Citywide Crime Stats

Crime	Year 2006	Year 2007	Year 2008	Total
Murder	46	47	33	126
Rape	50	74	65	189
Robbery	904	862	779	2,545
Assault	1017	1169	1198	3,384
Burglary	2135	2129	2215	6,479
Theft	4708	5358	5073	15,139
Grand Theft Automobile	2917	2603	2150	7,670
Total:	11,777	12,242	11,513	**35,532**
Source: City of San Bernardino Police Department, Paul Guillen, Police Communications Manager, letter correspondence, November 23, 2009.				

According to *Table 5.13-4*, theft was the most common citywide crime stat from the year 2006 through 2008, with 15,139 crimes. The least crimes committed stat from the year 2006 through 2008 was murder, with 126 crimes. As indicated in *Table 5.13-4*, year 2007 had the highest crime stats.

The incidence of crime per Project Areas for both property crimes and violent crimes for the years 2006 through October 31, 2009 were provided by the Police Department; refer to *Table 5.13-5*, *Crime Per Project Area*.

Table 5.13-5
Crime Per Project Area

Project Area/Year	Aggravated Assault	Burglary	Criminal Homicide	Forcible Rape	Robbery	Theft	Vehicle Theft	TOTAL
Central City North								
2006	51	32	2	3	46	102	72	308
2007	40	34	1	6	47	113	77	318
2008	43	42	1	8	43	102	49	288
2009 (through 10/31/09)	32	33	-	5	32	58	28	188
Total	166	141	4	22	168	375	226	**1,102**
Southeast Industrial Park								
2006	8	42	-	3	10	120	58	241
2007	9	32	-	-	3	130	38	212
2008	5	27	-	-	5	124	37	198
2009 (through 10/31/09)	8	22	-	2	3	84	19	138
Total	30	123	-	5	21	458	152	**789**
Tri-City								
2006	4	33	1	1	10	186	52	287
2007	13	29	2	-	2	182	40	268
2008	7	31	-	-	6	184	46	274
2009 (through 10/31/09)	4	11	-	-	6	149	37	207
Total	28	104	3	1	24	701	175	**1,036**
South Valle								
2006	11	14	-	1	6	57	27	116
2007	5	19	-	1	5	72	37	139
2008	6	24	-	-	7	65	19	121

Table 5.13-5 (continued)
Crime Per Project Area

Project Area/Year	Aggravated Assault	Burglary	Criminal Homicide	Forcible Rape	Robbery	Theft	Vehicle Theft	TOTAL
2009 (through 10/31/09)	9	11	-	1	9	56	15	101
Total	31	68	-	3	27	250	98	**477**
Meadowbrook/Central City Projects								
2006	12	40	-	2	27	140	60	281
2007	19	26	1	3	28	151	49	277
2008	17	29	1	-	22	143	28	240
2009 (through 10/31/09)	17	16	1	2	14	96	25	171
Total	65	111	3	7	91	530	162	**969**
Central City East								
2006	12	14	-	-	13	31	28	98
2007	13	14	-	2	15	47	28	119
2008	17	18	-	3	15	35	29	117
2009 (through 10/31/09)	9	10	-	-	8	26	17	70
Total	51	56	-	5	51	139	102	**404**
Central City South								
2006	14	32	-	-	19	186	82	333
2007	10	23	-	1	16	164	44	258
2008	9	22	-	-	8	137	56	232
2009 (through 10/31/09)	9	17	-	2	7	227	56	318
Total	42	94	-	3	50	714	238	**1,141**

Source: City of San Bernardino Police Department, Paul Guillen, Police Communications Manager, letter correspondence, November 23, 2009.

As indicated in *Table 5.13-5*, from the year 2006 through October 31, 2009, the most crime occurred within the Central City South with 1,141 crimes committed. Of those crimes, 714 were theft related. The least crime occurred within the Central City East with 404 crimes committed. Of those crimes, 139 were also theft related.

5.13.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to police protection. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or result in the need for new or physically altered governmental facilities, the construction of which may cause significant environmental impacts in order to maintain acceptable service ratios, response times or other performance objectives.

Based on these significance standards, the effects of the proposed project have been categorized as either "no impact," a "less than significant impact," or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a "significant unavoidable impact."

5.13.4 PROJECT IMPACTS AND MITIGATION MEASURES

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN THE NEED FOR ADDITIONAL POLICE PROTECTION FACILITIES AND PERSONNEL.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Currently, the Police Department staffing levels and facilities are adequate to serve the existing population.[19] Implementation of the proposed project would result in the addition of 1,833 dwelling units, 6,122 persons, 6,200,590 square feet of non-residential development, and 16,601 jobs beyond existing conditions. This anticipated growth has been planned for within the *General Plan*.

The additional 1,833 dwelling units represents approximately 2.5 percent of the projected 73,367[20] households, and the resulting 6,122 persons represents approximately 2.2 percent of the projected 276,264[21] population at buildout of the *General Plan* for Horizon Year 2030. The additional 16,601 jobs represents approximately 4.9 percent of the projected 338,712[22] employment at buildout; refer to Section 5.2, Population, Employment, and Housing.

Future development associated with the proposed project would result in an increased demand for police protection services within the Project Area. The gradual increase in population and development would require continued assessment of the adequacy of law enforcement staffing and facilities within the City. More crime may be anticipated in the Project Area during the construction phase of future development projects, as construction areas can become the targets of thieves and vandals. Future development could include places of significant public gatherings and parking lots that may be hidden and obscured from public viewing. The need for increased police service within the City is determined by increases in emergency 911 calls, sustained rises in crimes reported, and other issues directly related to community safety and the overall quality of life. The Police Department currently does not have an established staffing level based on personnel per population. The Police Department has been authorized for up to 350 sworn police officers, which is adequate to police the City limits.[23] As previously discussed, the Police Department is currently looking at the expansion in various parts of the City for both Police Department substations and training facilities.[24] However, at this time, there are no plans approved to guarantee the construction of these desired police facilities.

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19 City of San Bernardino Police Department, Mark A. Garcia, Assistant Chief of Police, letter correspondence, December 16, 2009.

20 *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

21 Ibid.

22 Ibid.

23 City of San Bernardino Police Department, Mark A. Garcia, Assistant Chief of Police, letter correspondence, December 16, 2009.

24 Ibid.

Construction activities could potentially affect emergency access to various locations within the Project Area on a short-term basis. Incorporation of temporary traffic controls, in accordance with the City's requirements, would reduce the potential short-term impacts to emergency access within the Project Area to a less than significant level.

Implementation of the proposed project would develop vacant and underutilized properties, involve public facility improvements, street and traffic improvements, streetscape improvements, economic development, housing rehabilitation, and rehabilitation of blighted properties within the Project Area. These improvements would serve to alleviate blighted, detrimental physical and economic conditions, which could thereby ease pressures of the Police Department in terms of crime and emergency response.

It is critical that future development projects mitigate project-related impacts to police services. New development projects would be evaluated by the Police Department on a project-by-project basis to determine potential impacts to police services. Currently, the City of San Bernardino Police Department does have an established Developer Fee Program to mitigate development impacts to police services.[25] The *General Plan* Public Facilities and Services Element includes goals and policies to provide police protection services. Mitigation measures are also recommended to ensure police protection services are adequately financed. Mitigation Measure PS-1 requires that individual development projects associated with the proposed project be evaluated and required to mitigate project-related impacts to police services. Furthermore, the anticipated growth has been planned for within the *General Plan*, and permitted land uses within the Project Area would be those permitted by the General Plan. Compliance and/or adherence to the goals and policies in the *General Plan* and Mitigation Measure PS-1 would reduce impacts to police services to a less than significant level.

General Plan Goals and Policies:

PUBLIC FACILITIES AND SERVICES ELEMENT

Goal 7.1 **Protect the residents of San Bernardino from criminal activity and reduce the incidence of crime.**

Policy 7.1.1 Maintain a complement of personnel in the Police Department that is capable of providing a timely response to criminal activity and can equitably protect all citizens and property in the City.

Policy 7.1.2 Coordinate inter-agency agreements with the County and adjacent jurisdictions to provide assistance and cooperation on inter-jurisdictional cases.

Policy 7.1.3 Continue to support and encourage community-based crime prevention efforts through regular interaction and coordination with existing neighborhood watch programs, assistance in the formation of new neighborhood watch groups, and regular communication with neighborhood and civic organizations.

[25] City of San Bernardino Police Department, Mark A. Garcia, Assistant Chief of Police, letter correspondence, December 16, 2009.

Policy 7.1.5 Ensure that landscaping (i.e., trees and shrubbery) around buildings does not obstruct views required to provide security surveillance.

Policy 7.1.6 Require adequate lighting around residential, commercial, and industrial buildings in order to facilitate security surveillance.

Policy 7.1.7 Require the provision of security measures and devices that are designed to increase visibility and security in the design of building siting, interior and exterior design, and hardware.

Mitigation Measures:

PS-1 All development projects within the Project Area shall be evaluated and required to mitigate project-related impacts to police services. Individual development projects shall pay any fees required by a Developer Fee Program, if established, by the City of San Bernardino and/or the Police Department.

Level of Significance After Mitigation: Less Than Significant Impact.

5.13.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO POLICE PROTECTION FACILITIES AND PERSONNEL.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Implementation of the proposed project has the potential to create a significant impact on police protection services. The anticipated growth has been planned for within the *General Plan*, and permitted land uses within the Project Area would be those permitted by the *General Plan*. Future development projects would be evaluated by the City of San Bernardino and the San Bernardino Police Department on a project-by-project basis to determine potential impacts to police services. The *General Plan* goals and policies would reduce impacts resulting from the proposed project to a less than significant level. As such, implementation of the proposed project would not result in cumulatively considerable police protection impacts.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measure PS-1. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

5.13.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Police protection impacts would be less than significant with compliance with the *General Plan* goals and policies. Therefore, no significant unavoidable police protection impacts would occur as a result of the proposed project.

5.13.7 SOURCES CITED

City of San Bernardino General Plan, Chapter 7, Public Facilities and Services Element, prepared by The Planning Center, dated November 1, 2005.

City of San Bernardino Police Department, Mark A. Garcia, Assistant Chief of Police, letter correspondence, dated December 16, 2009.

City of San Bernardino Police Department, Paul Guillen, Police Communications Manager, letter correspondence, dated November 23, 2009.

City of San Bernardino Police Department website, https://www.ci.san-bernardino.ca.us/depts/police_department/about_sbpd/about_sbpd/default.asp, accessed February 23, 2010.

Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report, prepared by The Planning Center, dated September 30, 2005.

San Bernardino Police Department Management Paper, Beat Plan, http://www.ci.san-bernardino.ca.us/civica/filebank/blobdload.asp?BlobID=5297, dated January 14, 2004.

San Bernardino Police Department 2004-2009 Strategic Plan, http://www.ci.san-bernardino.ca.us/civica/filebank/blobdload.asp?BlobID=2119.

2004-2009 Strategic Plan Progress, The First Twelve Months and Second Year Goals and Objectives, https://www.ci.san-bernardino.ca.us/civica/filebank/blobdload.asp?BlobID=2120, City of San Bernardino Police Department.

SECTION 5.14
SCHOOL FACILITIES

5.14 SCHOOL FACILITIES

This section identifies schools that serve residents of San Bernardino and provides an analysis of potential impacts associated with implementation of the proposed project. This section is based on the information obtained from the *General Plan* Public Facilities and Services Element, the *San Bernardino Final General Plan Update and Associated Specific Plans Environmental Impact Report*, the City of San Bernardino website, and the San Bernardino City Unified School District (SBCUSD).

5.14.1 REGULATORY SETTING

AB 2926

The State of California has traditionally been responsible for the funding of local public schools. To assist in providing facilities to serve students generated by new development projects, the State passed Assembly Bill 2926 (AB 2926) in 1986. This bill allowed school districts to collect impact fees from developers of new residential and commercial/industrial building space. Development impact fees were also referenced in the 1987 Leroy Greene Lease-Purchase Act, which required school districts to contribute a matching share of project costs for construction, modernization, or reconstruction.

SENATE BILL (SB) 50

Senate Bill 50 (SB 50) and Proposition 1A, both of which passed in 1998, provided a comprehensive school facilities financing and reform program, in part by authorizing a $9.2 billion school facilities bond issue, school construction cost containment provisions, and an eight-year suspension of the Mira, Hart, and Murrieta court cases. Specifically, the bond funds are to provide $2.9 billion for new construction and $2.1 billion for reconstruction/modernization needs. The provisions of SB 50 prohibit local agencies from denying either legislative or adjudicative land use approvals on the basis that school facilities are inadequate, and reinstates the school facility fee cap for legislative actions (e.g., general plan amendments, specific plan adoption, zoning plan amendments) as was allowed under the Mira, Hart, and Murrieta court cases. According to Government Code Section 65996, the development fees authorized by SB 50 are deemed to be “full and complete school facilities mitigation.” These provisions are in effect and will remain in place as long as subsequent state bonds are approved and available.

SB 50 establishes three levels of developer fees that may be imposed upon new development by the governing board of a school district, depending upon certain conditions within a district. School Developer Fees may be updated annually. SB 50 also established three levels of school fees: Level 1, Level 2, and Level 3 Fees. Level 1 Fees are the statutory fees, which can be adjusted for inflation every two years. Level 2 Fees allow school districts to impose fees beyond the base statutory cap, under specific circumstances. Level 3 Fees come into play if the State runs out of bond funds after 2006, which would allow school districts to impose 100 percent of the cost of the school facility or mitigation minus any local dedicated school monies. The school fee amounts provided for in Government Code Sections 65995, 65995.5, and 65995.7 would constitute full and complete mitigation for school facilities.

Funding for SBCUSD capital improvement projects primarily comes from a combination of State bond funds, local general obligation bond funds, and developer fees.[1] The SBCUSD does assess development fees against residential and commercial/industrial development to mitigate impacts resulting from the increase in demand for school-related services. As permitted by SB 50, the SBCUSD currently charges Level 2 developer fees in the amount of $5.40 per square foot for new residential development and $0.47 per square foot for new commercial/industrial development.[2]

In order to accommodate students from new development projects, school districts may alternatively finance new schools through special school construction funding resolutions and/or agreements between developers, the affected school districts, and occasionally, other local governmental agencies. These special resolutions and agreements often allow school districts to realize school mitigation funds in excess of the developer fees allowed under SB 50.

Funding and resources allocated to public colleges are determined by the State of California based on population projections and other factors. Each year the State Legislative Analyst's Office releases a Higher Education Capital Outlay budget, which identifies funding for public colleges.

Health and Safety Code Section 33607.5

Pursuant to Section 33607.5 of the *California Health and Safety Code*, the City of San Bernardino is entitled to receive a portion of the tax increment generated by its redevelopment agency (i.e., Community Development Commission [CDC]). Section 33607.5 of *California Health and Safety Code* sets forth the manner in which payments will be distributed to affected taxing entities from community redevelopment areas adopted or amended on or after January 1, 1994. Section 33607.5 (b) of *California Health and Safety Code* indicates "*Commencing with the first fiscal year in which the agency receives tax increments and continuing through the last fiscal year in which the agency receives tax increments, a redevelopment agency shall pay to the affected taxing entities, including the community if the community elects to receive a payment, an amount equal to 25 percent of the tax increments received by the agency after the amount required to be deposited in the Low and Moderate Income Housing Fund has been deducted. In any fiscal year in which the agency receives tax increments, the community that has adopted the redevelopment project area may elect to receive the amount authorized by this paragraph*". Therefore, the CDC is subject to Section 33607.5 of the *California Health and Safety Code*, and the City of San Bernardino (as the "community" that established the redevelopment agency) may elect its share of the first 25 percent of tax increment that is to be allocated to the taxing entities.

[1] San Bernardino City Unified School District, Mrs. Mary E. Watson, Secretary III to Mr. Wael Elatar, Facilities Administrator and Mr. Tim DeLand, Facilities Officer, Facilities Management and Maintenance Operations, email correspondence, March 11, 2010.

[2] Ibid.

Local education agencies that use funds received pursuant to Section 33607.5 for school facilities shall spend these funds at schools that are:

(A) within the project area,

(B) attended by students from the project area,

(C) attended by students generated by projects that are assisted directly by the redevelopment agency, or

(D) determined by the governing board of a local education agency to be of benefit to the project area.

5.14.2 ENVIRONMENTAL SETTING

EDUCATION[3]

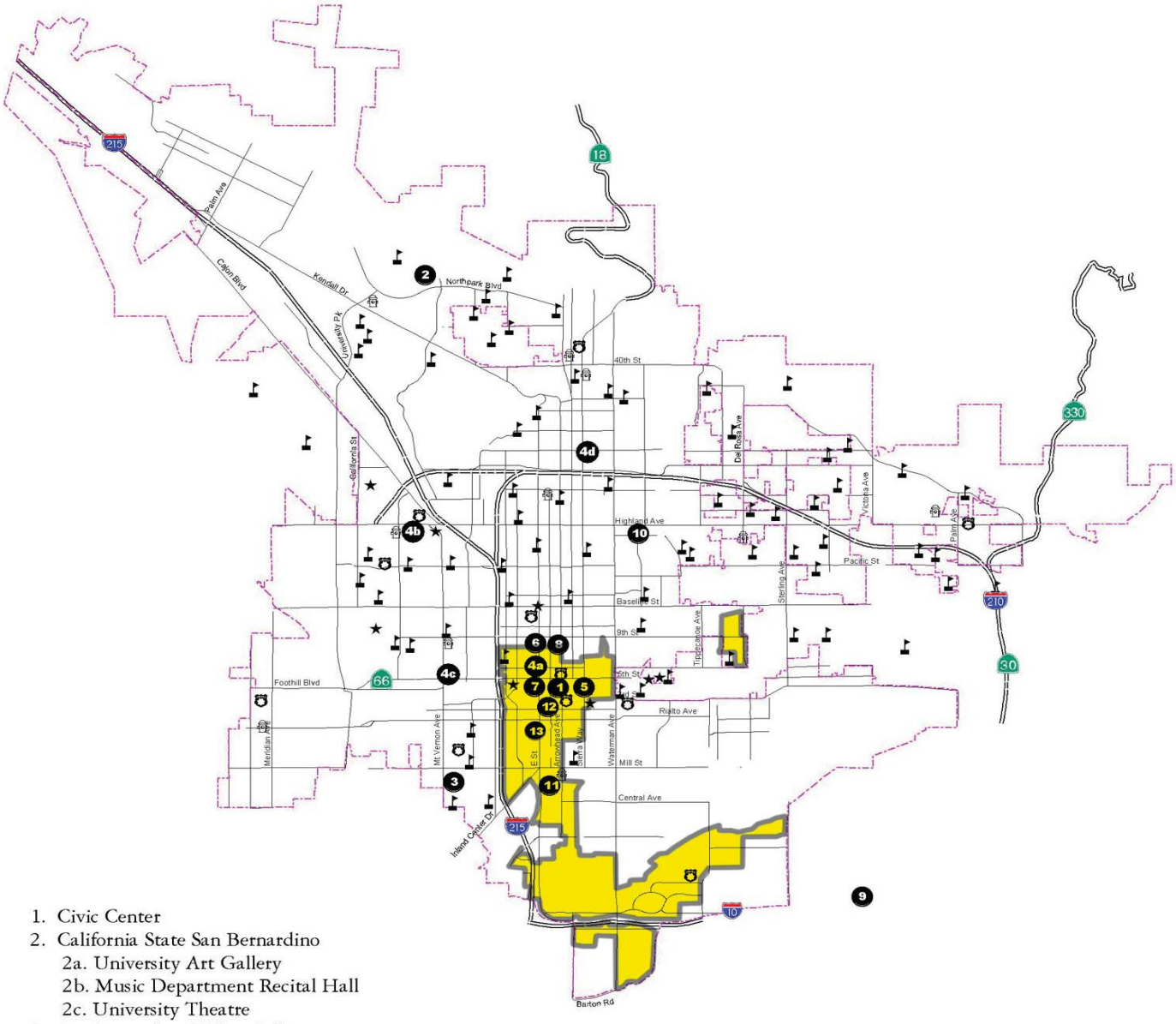
The City of San Bernardino, including the proposed project, is served primarily by the SBCUSD. As shown in *Exhibit 5.14-1, Civic, Institutional, and Cultural Facilities*, the SBCUSD has identified a number of target areas to examine for future school sites. Schools in the SBCUSD operate on a year-round track and traditional school year system. *Table 5.14-1, San Bernardino Schools Within or Near the Project Areas*, lists elementary, middle, and high schools within the SBCUSD and within or near the Project Areas.

The SBCUSD recently planned the eighth high school within the City, which is currently under construction. The new high school is located within the Project Area on the west side of Del Rosa Drive between 6th and 9th Streets. The high school will serve grades 9 through 12 with a capacity of approximately 2,700 students. The high school is scheduled to be completed by October 2011 and open for the 2012-2013 school year.[4]

In addition to public schools, the San Bernardino County Superintendent of Schools (SBCSS) acts as an intermediate service agency between the California Department of Education and the 38 school districts in the County to help meet the educational needs of all children countywide. The SBCSS runs two community day schools within or near the Project Areas; refer to *Table 5.14-2, Facilities Within or Near the Project Areas Operated by the San Bernardino County Superintendent of Schools*.

[3] *City of San Bernardino General Plan*, Chapter 7, Public Facilities and Services Element, prepared by The Planning Center, dated November 1, 2005.

[4] San Bernardino City Unified School District, Mrs. Mary E. Watson, Secretary III to Mr. Wael Elatar, Facilities Administrator and Mr. Tim DeLand, Facilities Officer, Facilities Management and Maintenance Operations, email correspondence, March 11, 2010.



1. Civic Center
2. California State San Bernardino
   2a. University Art Gallery
   2b. Music Department Recital Hall
   2c. University Theatre
3. San Bernardino Valley College
   3a. Valley College Art Gallery
   3b. Valley College Auditorium

4a. Norman Feldheym Library
4b. Dorothy Ingram Branch Library
4c. Paul Villasenor Branch Library
4d. Howard M. Rowe Branch Library

5. San Bernardino County Library Administration
6. Sturges Auditorium
7. California Theatre of Performing Arts
8. Heritage House Museum
9. San Bernardino County Museum
10. Franklin D. Roosevelt Bowl
11. National Orange Showgrounds
12. Convention Center
13. Baseball Stadium

School
Fire Station
Police/Hwy Patrol/Sheriff
Community Center
Project Area

Note: The Project Area boundary is approximate. Refer to Exhibit I-2 in the *San Bernardino Merged Area A Merger & Amendments Preliminary Report* for the Merged Area A boundary.

SOURCE: City of San Bernardino General Plan, November 1, 2005.

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ENVIRONMENTAL IMPACT REPORT
SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS

Civic Institutional and Cultural Facilities

Exhibit 5.14-1

Table 5.14-1
San Bernardino Schools Within or Near the Project Areas

Name	Location	Enrollment	Capacity
Elementary Schools			
Anderson School	24302 E. 4th Street, San Bernardino **(Located east of Central City East)**	129	-
Bing Wong[1,2]	1250 E. 9th Street, San Bernardino **(Located east of Central City East)**	674	835
Burbank[1,2]	198 W. Mill Street, San Bernardino **(Located east of Central City South)**	394	474
E. Neal Roberts[1,2]	494 E. 9th Street, San Bernardino **(Located northeast of Central City East)**	683	804
Juanita Blakely Jones[1,2]	700 N. F. Street, San Bernardino **(Located within Central City North)**	480	710
Lytle Creek[1,2]	275 S. "K" Street, San Bernardino **(Located west of Central City South)**	778	753
Monterey[1,2]	794 Monterey Street, San Bernardino **(Located east of Central City East)**	748	677
Urbita[1,2]	771 S. "J" Street, San Bernardino **(Located west of Central City South)**	406	388
Middle Schools			
Arrowview[1,2]	2299 N. "G" Street, San Bernardino **(Located north of Central City North and Central City East)**	1155	1540
Curtis[1,2]	1472 E. 6th Street, San Bernardino **(Located east of Central City East)**	995	1271
High Schools			
Pacific[1,2]	1020 Pacific Street, San Bernardino **(Located northeast of Central City East)**	2253	2575
San Bernardino[1,2]	1850 North E. Street, San Bernardino **(Located north of Central City North and Central City East)**	2257	2660
San Gorgonio[1,2]	2299 E. Pacific Street, San Bernardino **(Located northeast of Tri-City)**	2948	3073

Sources:
1. *Final General Plan Update and Associated Specific Plans Environmental Impact Report*, Section 5.12, Public Services, Table 5.12-3, Table 5.12-4, and Table 5.12-5, Pages 5.12-13 thru 5.12-15 prepared by The Planning Center, September 30, 2005.
2. Source: San Bernardino City Unified School District, Mrs. Mary E. Watson, Secretary III to Mr. Wael Elatar, Facilities Administrator and Mr. Tim DeLand, Facilities Officer, Facilities Management and Maintenance Operations, email correspondence, March 11, 2010.
3. School facilities of which serve the residents of the proposed Project Area.

Table 5.14-2
Facilities Within or Near the Project Areas
Operated by the San Bernardino County Superintendent of Schools

Name	Location	Classrooms	Enrollment
Tri-City Community Day School	697 S. Allen, San Bernardino **(Located east of Central City South)**	3	60
8th Street Community Day School	450 8th Street, San Bernardino **(Located within Central City North)**	2	40

Source: *Final General Plan Update and Associated Specific Plans Environmental Impact Report*, Section 5.12 Public Services, Table 5.12-7, Page 5.12-15, prepared by The Planning Center, September 30, 2005.

Portions of the City also extend into Colton Joint Unified, Redlands Unified, and Rialto Unified School Districts. City residents attending schools in these two districts comprise approximately two percent of Colton's and 12 percent of Rialto's total school enrollments. A small undeveloped portion of the City in Highland Hills extends into Redlands Unified School District. As the area develops, its residents will attend schools in the Redlands Unified School District.

California State University, San Bernardino (CSUSB), is located north of the Project Area, and the San Bernardino Valley College (SBVC) is located west of the Central City North Project Area, within the City limits. CSUSB enrolls over 16,000 students and is projected to house approximately 3,000 students on-site. The 430-acre campus functions as a four-year liberal arts and sciences college. CSUSB offers 42 baccalaureate degree programs, 15 teaching credentials, and 21 master's degree programs through five colleges: Arts and Letters, Business and Public Administration, Education, Natural Sciences, and Social and Behavioral Sciences. CSUSB is growing and has added 10 new buildings in the past 10 years. SBVC enrolls approximately 10,000 students in a two-year liberal arts program and includes technical, vocational, certificate, and transfer programs. These higher educational institutions are major community features that can serve as a catalyst for growth and improvement as well as a positive marketing tool for the City. The goal is to interconnect and unify these facilities through the use of cohesive design, landscaping, signage, enhanced pedestrian connections, and improved parking.

5.14.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to parks. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or result in the need for new or physically altered governmental facilities, the construction of which may cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives for parks;

- Increase the use of existing neighborhood and regional facilities such that substantial physical deterioration of the facility would occur or be accelerated; and/or

- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Based on these significance standards, the effects of the proposed project have been categorized as either "no impact," a "less than significant impact," or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a "significant unavoidable impact."

5.14.4 PROJECT IMPACTS AND MITIGATION MEASURES

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN THE NEED FOR ADDITIONAL SCHOOL FACILITIES.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Implementation of the proposed project would result in the addition of 1,833 dwelling units, 6,122 persons, 6,200,590 square feet of non-residential development, and 16,601 jobs beyond existing conditions. This anticipated growth has been planned for within the *General Plan*.

The additional 1,833 dwelling units represents approximately 2.5 percent of the projected 73,367[5] households, and the resulting 6,122 persons represents approximately 2.2 percent of the projected 276,264[6] population at buildout of the *General Plan* for Horizon Year 2030. The additional 16,601 jobs represents approximately 4.9 percent of the projected 338,712[7] employment at buildout; refer to *Section 5.2, Population, Employment, and Housing*.

Future development associated with implementation of the proposed project would result in an increase in students and impact the SBCUSD. To approximate future needs for schools, the SBCUSD uses an adjusted student generation factor based on residential units constructed in the District complied with existing school attendance. The adjusted student generation factors from the SBCUSD are listed below in *Table 5.14-3, Adjusted Student Generation Factors/Proposed Students*.

[5] *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.
[6] Ibid.
[7] Ibid.

Table 5.14-3
Adjusted Student Generation Factors/Proposed Students

School Level	Single-Family Detached Student Generation Factor (SGF)	Single-Family Attached and Multi-Family Student Generation Factor (SGF)
K-5	0 x 0.3310 = 0	1,833 x 0.4200 = 770
6-8	0 x 0.1695 = 0	1,833 x 0.1300 = 238
9-12	0 x 0.1933 = 0	1,833 x 0.2200 = 403

Notes:
K-5: Kindergarten through fifth-grade students
6-8: Sixth-grade through eighth-grade students
9-12: Ninth-grade through twelfth-grade students
Source: San Bernardino City Unified School District, Mrs. Mary E. Watson, Secretary III to Mr. Wael Elatar, Facilities Administrator and Mr. Tim DeLand, Facilities Officer, Facilities Management and Maintenance Operations, email correspondence, March 11, 2010.

Buildout of the General Plan would result in a total of 46,942 single-family units and 48,692 multi-family units in the City and Sphere of Influence (SOI). Using the SBCUSD student generation rates, buildout of the *General Plan* would result in a total student population for the City and SOI areas of 51,067 kindergarten through fifth-grade students, 12,285 sixth-grade through eighth-grade students, and 17,497 ninth-grade through twelfth-grade students, for a buildout total of 80,849 students. Implementation of the proposed project would result in the addition of 1,833 multi-family dwelling units, resulting in approximately 770 kindergarten through fifth-grade students, 238 sixth-grade through eighth-grade students, and 403 ninth-grade through twelfth-grade students. The additional 770 kindergarten through fifth-grade students represents approximately 1.5 percent of the projected 51,067 kindergarten through fifth-grade students and the additional 238 sixth-grade through eighth-grade students represents 1.9 percent of the projected 12,285 sixth-grade through eighth-grade students at buildout of the *General Plan* for Horizon Year 2030. The additional 403 ninth-grade through twelfth-grade students represents 2.3 percent of the projected 17,497 ninth-grade through twelfth-grade students at buildout. This anticipated growth has been planned for within the *General Plan*.

Currently, three of the 12 SBCUSD schools serving the Project Area are currently over capacity. However, as previously mentioned above, the SBCUSD recently planned the eighth high school within the City, which is currently under construction. The high school will serve grades ninth through twelfth with a capacity of approximately 2,700 students. The high school is scheduled to be completed by October 2011 and open for the 2012-2013 school year.[8]

Funding for SBCUSD capital improvement projects primarily comes from a combination of State bond funds, local general obligation bond funds, and developer fees.[9] As permitted by SB 50, the SBCUSD currently charges Level 2 developer fees in the amount of $5.40 per square foot for new residential development and $0.47 per square foot for new commercial/industrial development.[10]

[8] San Bernardino City Unified School District, Mrs. Mary E. Watson, Secretary III to Mr. Wael Elatar, Facilities Administrator and Mr. Tim DeLand, Facilities Officer, Facilities Management and Maintenance Operations, email correspondence, March 11, 2010.
[9] Ibid.
[10] Ibid.

Pursuant to SB 50, payment of fees to the applicable school district is considered full mitigation for project impacts, including impacts related to the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios or other performance objectives for schools. Therefore, individual project applicants would be required to pay the statutory fees, so that space can be constructed, if necessary, at the nearest sites to accommodate the impact of project-generated students, reducing impacts to a less than significant level. Mitigation Measure SCH-1 is required to ensure applicable developer fees are paid prior to the issuance of certificate of occupancy. Additionally, the City of San Bernardino would be entitled to receive its share of pass-through payments pursuant to Section 33607.5 (b) of the *California Health and Safety Code*. The City of San Bernardino is entitled to elect to receive its share of the 25 percent tax increment pass-through payment authorized by *California Health and Safety Code* Section 33607.5(b) commencing with the first fiscal year the CDC is required to make such payments to the affected taxing entities and continuing each year thereafter. School funds collected associated with the proposed project pursuant to Section 33607.5 are required to be used for schools serving the students generated in the Project Area, schools within the Project Area, or schools that benefit the Project Area. The *General Plan* Public Facilities and Services Element includes goals and policies to provide adequate school facilities. Furthermore, the anticipated growth has been planned for within the *General Plan*. Compliance and/or adherence to the goals and policies in the *General Plan* and the required payment of developer fees (Mitigation Measure SCH-1) would reduce impacts to school services and facilities to a less than significant level.

General Plan Goals and Policies:

PUBLIC FACILITIES AND SERVICES ELEMENT

Goal 7.3 **Meet the educational needs of the City's residents and integrate our higher educational facilities into the fabric of our community.**

Policy 7.3.1 Work with the local school districts, CSUSB, and SBVC to expand facilities and services to meet educational needs.

Policy 7.3.2 Work with the School District to ensure that new residential subdivisions dedicate land or contribute fees for the expansion of school facilities to meet the needs attributable to the new housing.

Policy 7.3.3 Work with the School District to consider alternative funding programs for school facilities construction and provision of educational programs should there be a shortfall of traditional revenue.

Policy 7.3.4 Cooperate with the San Bernardino City Unified School District, California State University, San Bernardino, and San Bernardino Valley College to integrate educational programs and facilities; ensure that adequate services are provided for youth; the educational needs of the students are being monitored; and the educational curricula is being designed to meet these needs.

Mitigation Measures:

SCH-1 Prior to the issuance of certificate of occupancy, individual project applicants shall submit evidence to the City of San Bernardino that legally required school-related Development Fees have been paid per the current mitigation established by the applicable school district.

Level of Significance After Mitigation: Less Than Significant Impact.

5.14.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO SCHOOL FACILITIES.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Implementation of the proposed project would result in the development of residential, lodging, general retail, office, and industrial uses, potentially generating new students within the SBCUSD. Individual development projects would be required to pay the appropriate school district developer fees based on the type and size of development proposed. Pursuant to SB 50, payment of fees to the appropriate school district is considered full mitigation for project impacts, including impacts related to the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios or other performance objectives for schools. Therefore, individual project applicants would be required to pay the statutory fees, so that space can be constructed, if necessary, at the nearest sites to accommodate the impact of project-generated students.

Additionally, the City of San Bernardino would be entitled to receive its share of pass-through payments pursuant to Section 33607.5 (b) of the *California Health and Safety Code*. The City of San Bernardino is entitled to elect to receive its share of the 25 percent tax increment pass-through payment authorized by *California Health and Safety Code* Section 33607.5(b) commencing with the first fiscal year the CDC is required to make such payments to the affected taxing entities and continuing each year thereafter. School funds collected associated with the proposed project pursuant to Section 33607.5 are required to be used for schools serving the students generated in the Project Area, schools located within the Project Area, or schools that benefit the Project Area.

Due to the anticipated growth already planned for within the *General Plan* and with compliance with regulatory requirements and recommended mitigation and *General Plan* goals and policies, implementation of the proposed project would not result in significant cumulative impacts in regards to school services and facilities.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measure SCH-1. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

5.14.6 SIGNIFICANT UNAVOIDABLE IMPACTS

School impacts associated with implementation of the proposed project would be less than significant with compliance with the *General Plan* goals and policies, recommended mitigation measure, and required payment of developer fees would reduce impacts to school services and facilities to a less than significant level. Therefore, no significant unavoidable school impacts would occur as a result of the proposed project.

5.14.7 SOURCES CITED

City of San Bernardino General Plan, Chapter 7, Public Facilities and Services Element, prepared by The Planning Center, dated November 1, 2005.

City of San Bernardino Parks and Recreation website, http://www.ci.san-bernardino.ca.us/depts/parks/default.asp, accessed March 11, 2010.

Police Department website, https://www.ci.san-bernardino.ca.us/depts/police_department/about_sbpd/default.asp, accessed February 23, 2010.

Final General Plan Update and Associated Specific Plans EIR, Public Services, prepared by The Planning Center, September 30, 2005.

San Bernardino City Unified School District, Mrs. Mary E. Watson, Secretary III to Mr. Wael Elatar, Facilities Administrator and Mr. Tim DeLand, Facilities Officer, Facilities Management and Maintenance Operations, email correspondence, March 11, 2010.

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SECTION 5.15
PARKS AND RECREATIONAL FACILITIES

5.15 PARKS AND RECREATIONAL FACILITIES

This section identifies existing parks and recreational facilities within the City of San Bernardino and provides an analysis of potential impacts to parks and recreation facilities that could result from implementation of the proposed project. This section is based on information obtained from the *General Plan* Parks, Recreation, and Trails Element, the *San Bernardino Final General Plan Update and Associated Specific Plans Environmental Impact Report*, the City of San Bernardino website, and the City of San Bernardino Parks, Recreation, and Community Services Department.

5.15.1 REGULATORY SETTING

QUIMBY ACT

Originally passed in 1975, the Quimby Act (California Government Code Section 66477) allows cities and counties to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. This act allows local agencies to establish ordinances requiring developers of residential subdivisions to provide impact fees for land and/or recreational facilities. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities. In 1982, the act was substantially amended, further defining acceptable uses of or restrictions on Quimby funds, provided acreage/population standards and formulas for determining the exaction, and indicated that the exactions must be closely tied to a project's impacts.

CITY OF SAN BERNARDINO DEVELOPMENT CODE[1]

The City of San Bernardino Development Code, Chapter 19.30, Subdivision Regulations, provides for the payment of a fee for each new residential dwelling unit constructed. The fee is placed in a specially designated fund and is used for acquisition and development of new or improvement of existing neighborhood and community parks and recreational facilities. The fee, which is imposed at the time of building permit issuance, is based on the type of construction and a percentage of its valuation. The ordinance provides that in lieu of fees, the Mayor and Common Council may grant credit for land and improvements that are dedicated in fee to public recreation and park purposes. The amount of dedicated land and any conditions are determined by mutual agreement between the City and the dedicator. Improvement of parklands is provided through the City's Capital Improvement Program. Acquisition funding is limited and must compete with funding needed for ongoing maintenance of existing facilities and equipment as well as with other City needs. In addition to City funds, federal and state grant programs provide funds for the purchase of new parkland.

[1] *City of San Bernardino General Plan*, Chapter 8, Parks, Recreation, and Trails Element, prepared by The Planning Center, dated November 1, 2005.

PARK STANDARDS[2]

The City of San Bernardino utilizes a park acreage standard of five acres per 1,000 residents. This is one acre greater than the land required by the state's Quimby Act, which requires developers to provide land and/or fees for new parks based on a standard of four acres per thousand residents. Based on the City's standards, 1,596.2 acres of total parkland are necessary to satisfy the projected population at buildout of the General Plan for Horizon Year 2030.

With regard to types of parks these acreages are intended to accommodate, no single set of accepted standards exist nationally or within the City. However, the National Recreation and Parks Association (NRPA) has published benchmark guidelines for communities to consider. The guidelines define acceptable ratios of per capita park space for local parkland, including a proportion of neighborhood and mini-parks, based on national averages. Regional parks, because of their variety in size and type, are not included. The standard for the neighborhood park portion is 1 to 2 acres per 1,000 population and for mini-marks, 0.25 to 0.50 per 1,000 population. The standard for a community park is 2 to 3 acres per 1,000 residents.

5.15.2 ENVIRONMENTAL SETTING

PARK AND RECREATION FACILITY CLASSIFICATIONS[3]

Parks and trails can be active or passive, and are important destinations for recreation, relaxation, or public gathering. Civic plazas are smaller centers of passive public space that provide benches or resting spots in an attractive environment within the urban fabric. They are preserved exclusively for non-recreational pedestrian use and have the potential to add important public gathering and green space to the City.

Park and recreational areas within the City of San Bernardino are classified as district parks, neighborhood parks, tot lots, and green belts. A brief description of these categories is provided below.

Regional Parks

Regional parks are at least 50 acres in size and offer a wide range of amenities to attract the greatest range of users and interested parties within and outside of the City. Regional parks provide significant natural features and passive and active recreational features such as sports fields, courts, fishing, hiking, camping, and picnicking.

Community Parks

Community parks are approximately 15 to 30 acres in size with a service radius of 1 to 2 miles. Typical amenities include lighted sports fields and courts, pools, hiking, play areas, picnic facilities, restrooms, service yards, and off-street parking.

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2 Ibid.

3 *City of San Bernardino General Plan*, Chapter 8, Parks, Recreation, and Trails Element, prepared by The Planning Center, dated November 1, 2005.

Neighborhood Parks

Neighborhood parks are 5 to 15 acres in size with a service radius of ½ to 1 mile. Neighborhood parks are easily accessible by walking or bicycling to the surrounding population. Typical amenities include both active and passive design, informal fields, court games, passive green space, playground apparatus, picnic areas, and off-street parking.

Mini Parks

Mini-parks, pocket parks, or tot lots are less than 5 acres in size with a service area of ¼- to ½-mile. Mini parks are easily accessible by walking or bicycling to the surrounding population. Typical amenities include court games, passive green space, playground apparatus, picnic areas, and off-street parking.

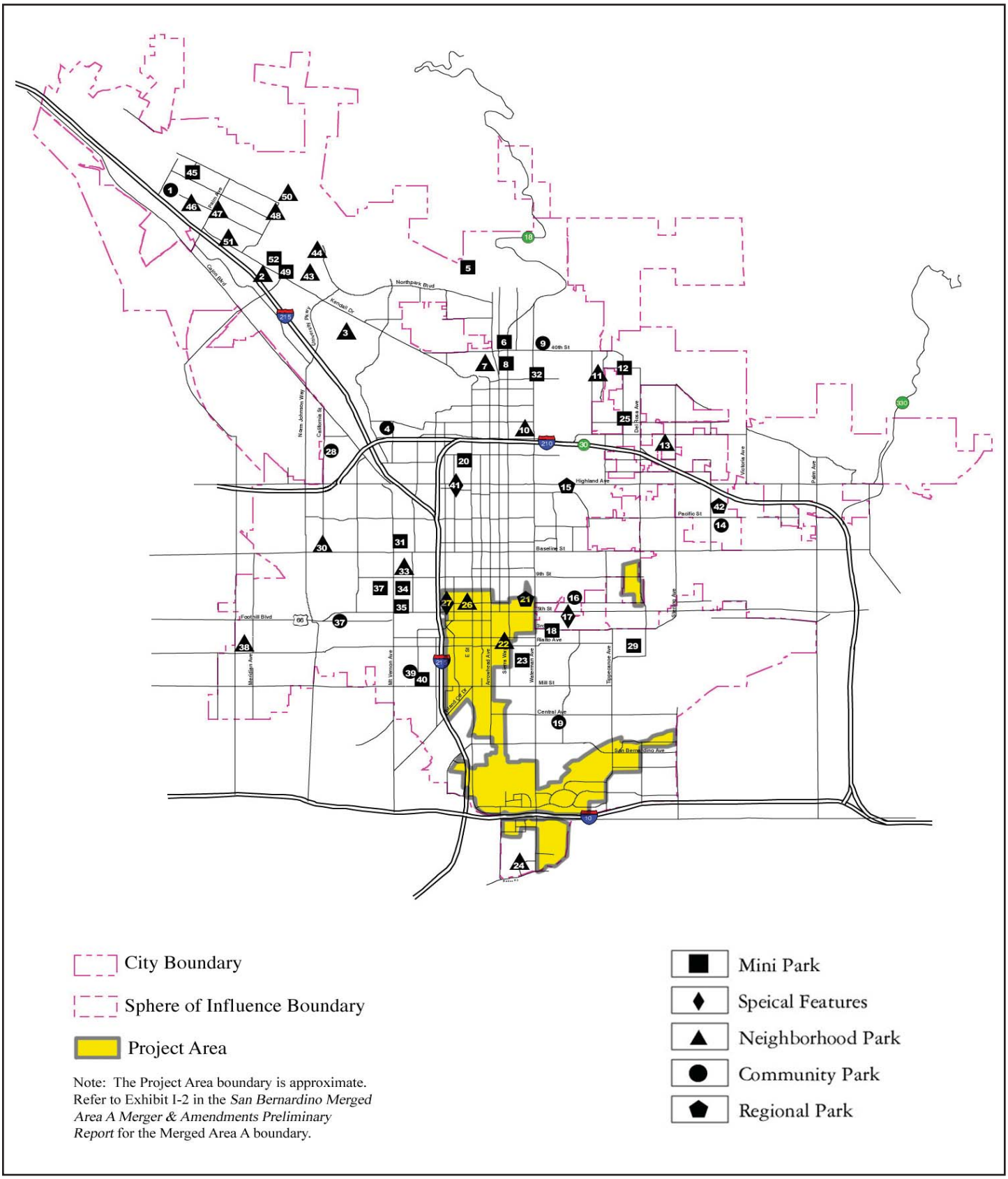
EXISTING PARKS

The City of San Bernardino Parks, Recreation, and Community Services Department is responsible for the development and maintenance of the City's park facilities. According to the department, there are 52 developed parks and recreational facilities in the City, including 19 neighborhood, ten community, 17 mini, three regional parks, and three special facilities, totaling 539.98 total acres of park in the City. The parks contain a broad range of facilities including athletic fields, volleyball and tennis courts, and children's play equipment. Special facilities include community buildings and senior centers. *Table 5.15-1, Parks Within or Near the Project Areas*, indicates the City parks by type and size within or near the Project Areas, and *Exhibit 5.15-1, Existing Parks and Recreation Facilities*, depicts the location of these parks.

There is one developed park in the City's Sphere of Influence, outside of the Project Area. Blake Street Park is an 8.7-acre neighborhood park located at the northeast corner of Blake Street and Bronson Street in the Muscoy area.[4]

To determine the amount and types of parks that will be needed to serve the population at buildout of the General Plan at Horizon Year 2030, population is projected as described in the Land Use Element. The projection need is then compared to the lands actually designated as parks on the Land Use Maps. According to the projections, a shortfall is evident; refer to *Table 5.15-2, Parkland Needs.*

[4] *City of San Bernardino General Plan*, Chapter 8, Parks, Recreation, and Trails Element, prepared by The Planning Center, dated November 1, 2005.



SOURCE: City of San Bernardino General Plan, November 1, 2005.

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SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS

Existing Parks and Recreation Facilities

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Exhibit 5.15-1

Table 5.15-1
Parks Within or Near the Project Areas

Name	Location (Project Area)	Map Identification[2]	Type[3]	Size (Acres)
Mini-Parks				
Center for Individual Development (CID)	8088 Palm Avenue **(Located east of Central City East)**	18	M	5.00
Meadowbrook Fields	179 E. Rialto Avenue **(Located east of Central City East, Meadowbrook/Central City, and Central City South)**	23	M	4.96
Richardson School Field	455 S. K. Street **(Located west of Central City South)**	40	M	1.00
			Total City Mini-Parks	**10.96**
Neighborhood Parks				
Meadowbrook Park/Hernandez Center	222 North Lugo Avenue **(Located within Central City East)**	22	N	14.12
Pioneer Park	565 F Street **(Located within Central City North)**	26	N	5.00
			Total City Neighborhood Parks	**19.12**
Community Parks				
Lytle Creek Park and Community Center	380 South K. Street **(Located west of Central City South)**	39	C	17.90
			Total City Community Parks	**17.90**
Regional Parks				
Secombe Lake Regional Park	160 E. 5th Street **(Located within Central City East)**	21	R	44.00
			Total City Regional Parks	**44.00**
Special Facilities – Community Centers and Senior Centers				
North Norton Community Center	24424 Monterrey **(Located east of Central City East)**	17	S	1.00
Fifth Street Senior Center	600 West 5th Street **(Located within Central City North)**	27	S	0.50
			Total City Special Facilities	**1.50**
			Total Existing Public Parks Within or Near the Project Areas:	**93.48[1]**

Notes:
1. Totals for existing developed parks within or near the Project Areas.
2. Refer to *Exhibit 5.15-1*.
3. Legend for column "Type"
   R = Regional
   C = Community
   N = Neighborhood
   S = Special Facility (Community Center, Senior Center)
   M = Mini

Note: Refer to the City of San Bernardino Parks and Recreation website, http://www.ci.san-bernardino.ca.us/depts/parks/parks.asp for park amenities and programs.

Source:
- *City of San Bernardino General Plan*, Chapter 8, Parks, Recreation, and Trails Element, Table PRT-2, Pages 8-6 thru 8-8 prepared by The Planning Center, dated November 1, 2005.
- *Final General Plan Update and Associated Specific Plans Environmental Impact Report*, Section 5.13 Recreation, Table 5.13-1, Pages 5.13-1 and 5.13-2, prepared by The Planning Center, dated September 30, 2005.
- City of San Bernardino Parks and Recreation website, http://www.ci.san-bernardino.ca.us/depts/parks/parks.asp , accessed December 16, 2009.

Table 5.15-2
Parks and Needs

Types of Parks	Incorporated City (Acres)	Sphere of Influence (Acres)	Total Area (Acres)
Parkland Needed Based on Projected Population at General Plan Buildout[3]			
Mini Parks	138.1	21.5	159.6
Neighborhood Parks	552.5	86.0	638.5
Community Parks	828.8	128.9	957.7
Total Needed	1,519.5	236.4	1,755.8
Existing Parks[2]			
Mini Parks[1]	34.59	-	34.59
Neighborhood Parks[1]	130.33	8.7	139.03
Community Parks[1]	214.16	-	214.16
Total Existing	379.08	8.7	387.78
Shortfall			
Mini Parks	-103.5	-21.5	-125.0
Neighborhood Parks	-422.2	-77.3	-499.5
Community Parks	-614.6	-128.9	-743.6
Total Shortfall	-1,140.4	-227.7	-1,368.0

Notes:
1. Suggested need only based on NRPA national averages.
2. Existing parks provided by Parks, Recreation and Community Services Department, 12/30/03.
3. Suggested need based on high end of ranges. Need for all parklands based upon the City standard of 5 acres of parklands per 1,000 population.

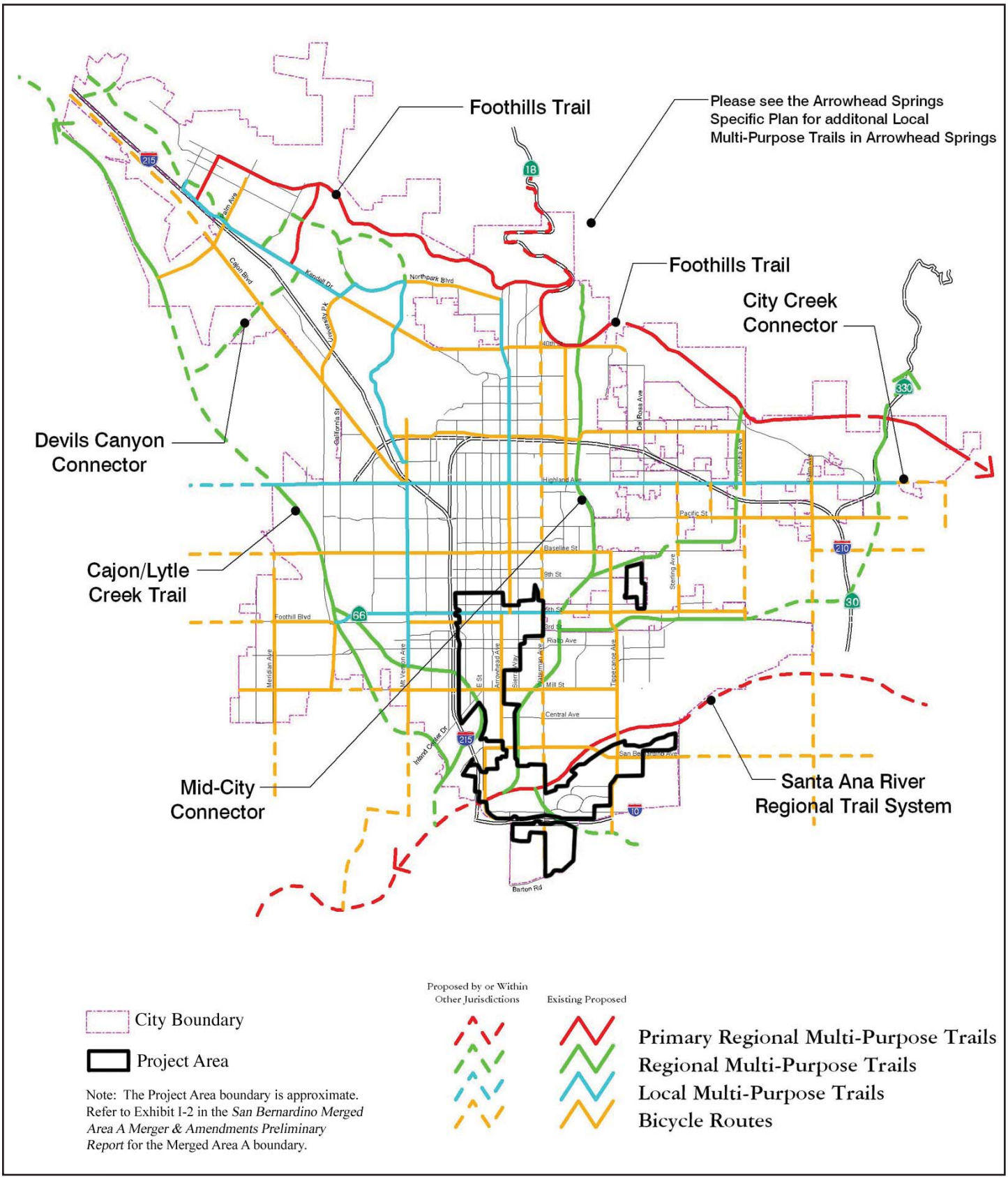
Source: *City of San Bernardino General Plan*, Chapter 8, Parks, Recreation, and Trails Element, Table PRT-1, Page 8-4, dated November 1, 2005.

Using either the City's parkland requirement or the NRPA standards, the City will experience a shortfall in required parkland at buildout in Horizon Year 2030 if no additional parks are provided. At buildout, there will be an approximate shortfall of 1,368 acres of parklands based on the NRPA standards, or 1,048 acres based on the City's parkland requirements unless additional park area can be provided. The projected shortfall in parks is reduced by the fact that there are three regional parks totaling 158 acres that have active recreation facilities, several school sites in the City available for recreational activities, special recreation facilities (community centers and senior centers), and the presence of year-round passive and active recreational opportunities in the nearby San Bernardino National Forest.

MULTI-PURPOSE TRAILS AND BIKEWAY CLASSIFICATIONS[5]

The City's off-street recreational trail system combines hiking, equestrian, and bike trails into multi-purpose trails. The on-street trail system consists of dedicated bike lanes along the pavement edge of streets. Pedestrian access and recreation is provided through the City's sidewalks and hiking trails. Many of the trails are still in the planning stages. Both the off-street and on-street trails provide a system that interconnects the City's parks, schools, and civic facilities with each other and with the surrounding area; refer to *Exhibit 5.15-2, Conceptual Trail System*. The following multi-purpose trails and bikeways are found within the City.

[5] *City of San Bernardino General Plan*, Chapter 8, Parks, Recreation, and Trails Element, prepared by The Planning Center, dated November 1, 2005.



SOURCE: City of San Bernardino General Plan, November 1, 2005.

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SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS

Conceptual Trail System

Exhibit 5.15-2

Primary Regional Multi-Purpose Trails

These multi-purpose trails serve an entire region and accommodate hiking, equestrian, and bicycle users. The City has two Primary Regional Multi-Purpose trails: the Santa Ana River Trail and the Greenbelt Trail, which is located in the foothills adjacent to the City's northern boundary. The Santa Ana River Trail intersects the Southeast Industrial Park and Tri-City Project Areas.

Regional Multi-Purpose Trails

These multi-purpose trails serve bicycle, pedestrian, and equestrian uses and provide regional connections. The City has the Cajon/Lytle (intersects Central City South Project Area), Mid-City (intersects Southeast Industrial Park and Tri-City Project Areas), Sand Canyon, City Creek, and Loma Linda Connector trails.

Local Multi-Purpose Trails

The multi-purpose trails serve pedestrian, bicycle, and equestrian users and provide connections within the City. These trails intersect Central City East and Central City North Project Areas.

Bicycle Routes

The City has numerous existing and planned bicycle routes both on and off-street. Bicycle routes intersect seven Project Areas. The Bikeway Facilities Master Plan, which was adopted in 1994, describes a process in which the City will develop a safe and efficient network of bike paths for recreation and commuter use. The following system, which is derived from the State of California, categorizes bicycle facilities into the following three classifications:

- Class I Bikeways. A Class I Bikeway is a dedicated travel-way for bicyclists. The most common applications for Class I Bikeways are along rivers, canals, and utility rights-of-way, within college campuses, or within and between parks. They may also be provided as part of planned developments. The Class I Bikeways are included within the multi-purpose trails described above and share right-of-way with other users.

- Class II Bikeways: Class II Bikeways delineate the right-of-way assigned to bicyclists along roadways. Bike lane signs and pavement markings help define these "bike lanes."

- Class III Bikeways. Class III Bikeways are shared facilities that serve either to provide continuity to other bicycle facilities, or designate preferred routes through high demand corridors. Bike routes are normally shared with motor vehicles on the street, or with pedestrians on sidewalks. In either case, bicycle use is secondary.

Pedestrian Facilities

In addition to the planned and existing Multi-Purpose Trails described above, pedestrian circulation within the City is primarily provided for on sidewalks, which are available on the vast majority of the City's improved streets.

EXISTING RECREATIONAL FACILITIES AND PROGRAMS[6]

In addition to mini, neighborhood, community, and regional parks, there are individual regional facilities such as the Shandin Hills Golf Course that is a professional class, 18-hole course. The public course is owned by the City and leased to a private company for operation and maintenance. The City also includes the Western Regional Little League Headquarters and stadium on land owned by the City but used exclusively for Little League ball play. The City also provides recreational services at the local schools, under joint resolutions adopted by the City Council and school district. It provides schoolyard facilities to remain open in the daytime hours after school for recreational use of the community. The Department operates a variety of recreational programs on school grounds including the Tiny Tot program, Senior Citizen leisure programs, and active and passive programs for all age groups including after school activities during the regular school year. For the use of school building facilities and pools, the City pays rental fees. The school districts reserve the right for first priority for use of all school property.

The Department offers the following adult classes: fitness, aerobics, women's aerobics "Healthy Partners in Motion," ballroom dance, adult/youth golf classes, adult reading, ceramics/pottery, and scrap booking. Senior services provided by the City include bridge, billiards, crochet class, arts and crafts, watercolor, computers, exercise, dance, the senior companion program, senior nutrition, senior cooling centers, and the retired senior volunteer program. The Department offers five community centers and two senior centers throughout the City; refer above to *Table 5.15-1*.

5.15.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to schools. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or result in the need for new or physically altered governmental facilities, the construction of which may cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives.
- Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

[6] *Final General Plan Update and Associated Specific Plans EIR*, Recreation, prepared by The Planning Center, dated September 30, 2005.

Based on these significance standards, the effects of the proposed project have been categorized as either "no impact," a "less than significant impact," or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a "significant unavoidable impact."

5.15.4 PROJECT IMPACTS AND MITIGATION MEASURES

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN SIGNIFICANT IMPACTS TO THE ADEQUATE AVAILABILITY OF PARKLAND AND RECREATIONAL FACILITIES WITHIN THE CITY OF SAN BERNARDINO.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Buildout of the *General Plan* would generate additional residents, which would increase the demand for parks and park usage. Based on the City's future parkland area needs of 5 acres per 1,000 residents, buildout of the *General Plan* would result in a need for approximately 1,596 acres of parkland including 215 acres in unincorporated areas. At the time of the *General Plan* approval, the City provided 379.1 acres of mini-parks, neighborhood parks, and community parks with 8.7 acres in the sphere of influence (SOI) area. The General Plan designated 469 acres for public parks. Therefore, the future buildout would result in a shortfall of 1,127 acres. Using the high end values of the NRPA guidelines, this equates to an additional need of 125 acres for mini parks, 508 acres for neighborhood parks, and 744 acres of community parks. Although the City has a shortfall of 1,127 acres, the projected shortfall in parks is lessened somewhat to a need for 969 acres by the fact that there are three regional parks totaling 158 acres that have active recreation facilities. Additionally, many schools sites, community centers and senior centers are available for recreational activities. Furthermore, in addition to developed parkland, the City designates approximately 618.7 acres of undeveloped open space parkland and 664 acres of public and commercial recreation, which includes private recreational facilities and an additional 1,313 acres of undeveloped open space and parkland and 57 acres of public and commercial recreation in the SOI areas.[7]

Implementation of the proposed project would generate additional residents in the San Bernardino area, which would increase the demand for parks and park usage. The proposed project would result in the addition of 1,833 dwelling units, 6,122 persons, 6,200,590 square feet of non-residential development, and 16,601 jobs beyond existing conditions. The proposed project does not include development of any specific parks or recreational facilities. Based on the City's future parkland needs of 5 acres per 1,000 residents, implementation of the proposed project would result in the need for approximately 30.6 acres of parkland. This anticipated growth has been planned for within the *General Plan*. The proposed project's impacts to parks and recreational facilities would be the same as discussed for the *General Plan*. The projected shortfall in parks is reduced by the fact that there are three regional parks totaling 158 acres that have active recreation facilities, several school sites in the City available for recreational activities, special recreation facilities (community centers and senior centers) and the presence of year-round passive and active recreational opportunities in the nearby San Bernardino

[7] *Final General Plan Update and Associated Specific Plans EIR*, Recreation, prepared by The Planning Center, dated September 30, 2005.

National Forest. Therefore, implementation of the proposed project would not further contribute to the City's existing parkland deficiency.

The additional 1,833 dwelling units represents approximately 2.5 percent of the projected 73,367[8] households; the resulting 6,122 persons represents approximately 2.2 percent of the projected 276,264[9] population; and the additional 16,601 jobs represents approximately 4.9 percent of the projected 338,712[10] employment at buildout of the *General Plan* for Horizon Year 2030. The 30.6 acres of parkland represents approximately 1.9 percent of the projected 1,596 acres of total parkland needed at the population buildout of the *General Plan*; refer to Section 5.2, Population, Employment, and Housing.

Individual development projects would be reviewed to determine their potential impact on park and recreation facilities. The *General Plan* includes a policy to establish the standard of 5 acres of parkland for every 1,000 residents. The *General Plan* also includes a policy to require developers of residential subdivisions to provide fee contributions based on the valuation of the units to fund parkland acquisition and improvements. Dedication of parkland would help to reduce potential impacts of future residential development on parks and recreational facilities. Furthermore, the City of San Bernardino Parks, Recreation, and Community Services Department anticipates minimal impacts to the parks and recreational facilities due to project implementation.[11] Mitigation Measure PR-1 ensures that development in the Project Area does not disrupt operations at or access to parks in the Project Area. Additionally, development contractors and builders shall be vigilant in proper handling, storage, and disposal of hazardous and regulated materials as well as strict construction and operations schedules to mitigate noise impacts.[12] Compliance and/or adherence to *General Plan* goals and policies, Mitigation Measure PR-1, and regulatory requirements would reduce impacts to parks and recreational facilities to a less than significant level.

General Plan Goals and Policies:

PARKS AND RECREATION ELEMENT

Goal 8.1 **Improve the quality of life in San Bernardino by providing adequate parks and recreation facilities and services to meet the needs of our residents.**

Policy 8.1.2 Provide a variety of park "experiences", including those developed for intense recreational activity, passive open space enjoyment, and a mixture of active and passive activities.

Policy 8.1.3 Pursue the development of portions of the Santa Ana River, Lytle Creek, and flood control drainages and detention basins for recreational uses that will not inhibit flood control purposes or be adversely impacted by flooding.

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8 *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.
9 Ibid.
10 Ibid.
11 City of San Bernardino Parks, Recreation & Community Services Department, Mr. Robert Lennox, Deputy Director, email correspondence, March 31, 2010.
12 Ibid.

Policy 8.1.4 Examine the potential use of geothermal resources for recreational use (e.g., pools).

Policy 8.1.5 Integrate parks and recreation facilities with the Master Plan for Trails and Bikeways.

Policy 8.1.6 Accommodate the recreational needs of the City's residents reflecting their unique social, cultural, ethnic, and physical limitations in the design and programming of recreational spaces and facilities.

Policy 8.1.8 Inform the City residents of recreational programs through the internet, cable television, newsletters, and other publications.

Policy 8.1.9 Initiate and attend joint meetings with the Forest Service, County Parks and Recreation Department, and the state to coordinate the joint use of recreational facilities, and parkland acquisition, and establish new recreational programs.

Policy 8.1.10 Maintain and expand cooperative arrangements with the San Bernardino Unified School District, City Municipal Water Department, Cal State San Bernardino and San Bernardino Valley College for after hour and summertime use of parks, pools, concert halls, and other facilities.

Goal 8.2 Design and maintain our parks and recreation facilities to maximize safety, function, beauty, and efficiency.

Policy 8.2.1 Parks shall be designed in accordance with contemporary safety standards and "CPTED" (Crime Prevention Through Environmental Design) principles.

Policy 8.2.2 Each park within the City shall be evaluated for safety and maintenance on an established schedule.

Policy 8.2.3 Encourage local individuals and groups to contribute or plant trees (in accordance with a prescribed tree planting plan) in neighborhood and community parks.

Policy 8.2.4 Develop master plans for each park to ensure that (a) the siting of buildings, open air facilities, and landscape are unified, functionally related to efficiency, and compatible with adjacent uses; and (b) landscape locations and species are coordinated with architectural and site design.

Policy 8.2.5 Design and develop parks to complement and reflect their natural environmental setting and maximize their open space character.

Policy 8.2.6 Design and improve our parks according to the following:

- Locate parks on collector or neighborhood streets, so they are easily accessible to adjacent residential neighborhoods;

- Site uses so that they do not adversely impact adjacent residences (e.g., locating high activity, noise generating, and nighttime uses away from residences;
- Fulfill the particular needs of residents of the area they serve (i.e., senior citizens, and families with children);
- Provide for parking so that it does not disrupt abutting residences; and
- Incorporate landscape that "fits" with adjacent areas.

Policy 8.2.7 Install new and replace existing landscaping where it is severely deteriorated, inappropriately located for park activities, and incompatible with other landscape and adjacent uses.

Policy 8.2.8 Ensure that all parks are adequately illuminated for safe use at night.

Policy 8.2.9 Provide for the supervision of park activities and promote enforcement of codes restricting illegal activity.

Policy 8.2.10 Restrict and control nighttime park use so that adjacent residences are not adversely affected.

Goal 8.3 Develop a well-designed system of interconnected multi-purpose trails, bikeways, and pedestrian paths.

Policy 8.3.1 Work cooperatively with appropriate regional agencies to facilitate development of interconnected trails that tie into major activity areas.

Policy 8.3.2 Establish a multi-purpose trail system along the foothills of the San Bernardino Mountains, Santa Ana River, Cajon and Lytle Creeks, and interconnecting linkages in collaboration with the U.S. Forest Service, County of San Bernardino, City of Highland, Loma Linda, and other adjacent communities.

Policy 8.3.3 Establish a recreational greenbelt system linking the river and drainage corridors with the mountains.

Policy 8.3.4 All new developments on designated routes shall provide bicycle and pedestrian routes linked to adjacent facilities.

Policy 8.3.5 Provide routes accessible for disabled persons that link public facilities and commercial areas to residential neighborhoods.

Policy 8.3.6 Adequate and secure bicycle storage facilities shall be provided for new institutional and non-residential development.

Policy 8.3.7 Provide bicycle racks in public facilities and in activity centers.

Policy 8.3.8 Install sidewalks and wheelchair ramps in existing neighborhoods.

Policy 8.3.9 Separate bikeway and trail systems from traffic and roadways wherever possible.

Policy 8.3.10 Provide clear separation of hikers, joggers, and equestrians where possible.

Policy 8.3.11 Seek the use of easements and rights-of-way from owners and continue to negotiate agreements for the use of utility easements, flood controls channels, and railroad rights-of-way to expand the park and trail system.

Policy 8.3.12 Incorporate the following features in multi-purpose trails, bike routes, and pedestrian paths:

a. Special paving or markings at intersections;
b. Clear and unobstructed signing and trail/lane markings;
c. Improved signal phasing;
d. Vehicular turning restrictions at intersections;
e. Hearing impaired cross walk signals;
f. Trees to provide shade;
g. Safe and well lighted rest areas; and
h. Coordinated street furniture including signs, trash receptacles, newspaper stands, and drinking fountains.

Goal 8.4 Provide adequate funding for parkland and trails acquisition, improvements, maintenance, and programs.

Policy 8.4.1 Pursue the acquisition of surplus federal, state, and local lands to meet present and future recreation and community service needs.

Policy 8.4.2 Continue to require developers or residential subdivision to provide fee contributions based on the valuation of the units to fund parkland acquisition and improvements.

Policy 8.4.3 Grant Quimby fee waivers only when usable parklands are received and when such waivers are determined to be in the best interest of City residents as certified by the Mayor and Common Council on recommendation of the Parks, Recreation and Community Services Department.

Policy 8.4.4 Continue and expand mechanisms by which the City may accept gifts and dedications of parks, trails, open space, and facilities.

Policy 8.4.5 Consider the use of special taxes, sale of bonds, or assessment districts for park and trail development and maintenance.

Policy 8.4.6 Continue to provide financial support, including user fees and in-lieu fees, for summer lunch, playground, swimming pool programs and recreational facilities, and other appropriate programs.

Policy 8.4.7 Installation and/or replacement of the recreational facilities and equipment and the bikeway and trail system shall be carried out as part of the City's Capital Improvement Program.

NATURAL RESOURCES AND CONSERVATION ELEMENT

Goal 12.2 Protect riparian corridors to provide habitat for fish and wildlife.

Policy 12.2.3 Pursue voluntary open space or conservation easements to protect sensitive species or their habitats.

Goal 12.3 Establish open space corridors between and to protected wildlands.

Policy 12.3.1 Identify areas and formulate recommendations for the acquisition of property, including funding, to establish a permanent corridor contiguous to the National Forest via Cable Creek and/or Devil Canyon. The City shall consult with various federal, state and local agencies and City departments prior to the adoption of any open space corridor plan.

Policy 12.3.2 Seek to acquire real property rights of open space corridor parcels identified as being suitable for acquisition.

Policy 12.3.3 Establish the following habitat types as high-priority for acquisition as funds are available:

- Habitat of endangered species;
- Alluvial fan scrub vegetation;
- Riparian vegetation dominated by willow, alder, sycamore, or native oaks; and native walnut woodlands.

Policy 12.3.4 Preserve and enhance the natural characteristics of the Santa Ana River, City Creek, and Cajon Creek as habitat areas.

Policy 12.3.5 Delineate the habitats of the Santa Ana River Sucker (*Catastomus santaanae*) and Pacific Speckled Dace (*Rhinicythys osculus carringtoni*); develop recommendations for preservations and enhancement of these habitats; and develop standards for development of adjacent lands.

Mitigation Measures:

PR-1 Prior to the issuance of a grading permit, the Parks, Recreation & Community Services Department shall review development site plans to ensure that development does not disrupt operations at parks and recreational facilities in the Project Area, or access to pedestrian sidewalks or public transportation routes. Any recommendations by the Parks, Recreation & Community Services Department shall be implemented during site preparation, grading, construction, and operations.

Level of Significance After Mitigation: Less Than Significant Impact.

5.15.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO PARKS AND RECREATIONAL FACILITIES.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: Implementation of the proposed project has the potential to create a significant impact on parks and recreational facilities. Individual development projects would be reviewed to determine their potential impact on parks and recreational facilities within the City. The *General Plan* includes a policy to establish the standard of 5 acres of parkland for every 1,000 residents. The *General Plan* also includes a policy to require developers of residential subdivisions to provide fee contributions based on the valuation of the units to fund parkland acquisition and improvements. Payment of park in lieu fees and/or dedication of parkland by future developments would reduce potential park impacts. If development of the Project Area interrupts service or access to the programming and facility, the matching projected fee revenues would need to be collected to offset operational expenses.[13] The proposed project does not include development of any specific parks or recreational facilities. Furthermore, the anticipated growth has been planned for within the *General Plan*. The proposed project impacts to parks and recreational facilities would be the same as discussed for the *General Plan*. The projected shortfall in parks is reduced by the fact that there are three regional parks totaling 158 acres that have active recreation facilities, several school sites in the City available for recreational activities, special recreation facilities (community centers and senior centers) and the presence of year-round passive and active recreational opportunities in the nearby San Bernardino National Forest. Therefore, implementation of the proposed project would not further contribute to the City's existing parkland deficiency. Compliance and/or adherence to the *General Plan* goals and policies, recommended mitigation, and regulatory requirements would reduce impacts to parks and recreational facilities to a less than significant level.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measure PR-1. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

5.15.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Parks and recreational impacts would be less than significant with compliance with *General Plan* goals and policies. Therefore, no significant unavoidable parks and recreational impacts would occur as a result of the proposed project.

[13] City of San Bernardino Parks, Recreation & Community Services Department, Mr. Robert Lennox, Deputy Director, email correspondence, March 31, 2010.

5.15.7 SOURCES CITED

City of San Bernardino General Plan, Chapter 8, Parks, Recreation, and Trails Element, prepared by The Planning Center, dated November 1, 2005.

City of San Bernardino Parks, Recreation & Community Services Department, Mr. Robert Lennox, Deputy Director, email correspondence, March 31, 2010.

City of San Bernardino Parks website, https://www.ci.san-bernardino.ca.us/depts/parks/parks.asp, accessed December 15, 2009.

Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report, prepared by The Planning Center, dated September 30, 2005.

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SECTION 5.16
WATER

5.16 WATER

This section identifies existing conditions within the City of San Bernardino and provides an analysis of potential impacts to water supplies and distribution systems that could result from implementation of the proposed project. This section is based on information obtained from the *General Plan* Utilities Element, the *San Bernardino Final General Plan Update and Associated Specific Plans Environmental Impact Report*, the *2007 City of San Bernardino Municipal Water Department Water Facilities Master Plan* (*Water Facilities Master Plan*), the *2005 Urban Water Management Plan* (*UWMP*), the San Bernardino Municipal Water Department (SBMWD), the *City of San Bernardino Municipal Code*, and the City of San Bernardino website.

5.16.1 REGULATORY SETTING

URBAN WATER MANAGEMENT ACT

The Urban Water Management Plan Act (UWMP Act) was passed in 1983 and codified as California Water Code Sections 10610 through 10657. Since its passage in 1983, the Act has been amended on several occasions. In 2004, the Act was amended to require additional discussion of transfer and exchange opportunities, non-implemented demand management measures, and planned water supply projects. Most recently, in 2005, the Act was amended to require water use projections (required by California Water Code Section 10631) to include projected water use for single-family and multi-family residential housing needed for lower income households. In addition, Government Code Section 65589.7 was amended to require local governments to provide a copy of the adopted housing element to water and sewer providers. The Act requires *"every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet (AF) of water annually, to prepare and adopt, in accordance with prescribed requirements, an urban water management plan."* Urban water suppliers must file these plans with the California Department of Water Resources every five years describing and evaluating reasonable and practical efficient water uses, reclamation, and conservation activities. As required by the Memorandum of Understanding Regarding Urban Water Conservation in California and Assembly Bill 11X (1991), the 2005 UWMP Act, incorporated water conservation initiatives, and a Water Shortage Contingency Plan.

SENATE BILL 610

SB 610 requires a detailed report regarding water availability and planning for additional water supplies that is included with the environmental document for specified projects. Under SB 610, water supply assessments are required to be included in environmental documentation for certain projects, as defined in Water Code 10912[a], subject to CEQA. Under SB 221, approval by a city or county of certain residential subdivisions requires a written verification of sufficient water supply. According to the San Gabriel County Water District, the Mission District Specific Plan project does not surpass the threshold criteria for compliance with SB 221 or SB 610. Thus, no future action is necessary under the provisions of SB 221 and 610. All projects that meet any of the following criteria require the water availability assessment:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A proposed hotel and motel having more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or an industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- A mixed-use project that includes one or more of the projects specified in this subdivision; or
- A project that would demand an amount of water equivalent to or greater than the amount of water required by a 500 dwelling unit project.

While SB 610 primarily affects the Water Code, SB 221 principally applies to the Subdivision Map Act. The primary effect of SB 221 is to condition every tentative map for an applicable subdivision on the applicant by verifying that the public water supplier (PWS) has sufficient water supply available to serve it. Under SB 221, approval by a city or county of certain residential subdivisions requires a written verification of sufficient water supply. SB 221 applies to any subdivision, defined as:

- A proposed residential development of more than 500 dwelling units (if the PWS has more than 5,000 service connections); or
- Any proposed development that increases connections by 10 percent or more (if the PWS has fewer than 5,000 connections).

2007 MUNICIPAL WATER DEPARTMENT WATER FACILITIES MASTER PLAN – SAN BERNARDINO

The *Water Facilities Master Plan* was developed to assist the San Bernardino Municipal Water Department in planning for the future, so that it can continue providing a reliable source of high quality water, in the most cost-effective manner, to both existing and future customers.

2005 URBAN WATER MANAGEMENT PLAN

The *Urban Water Management Plan* (*UWMP*) is an update of the previously prepared 2000 UWMP for the Planning Period 2000-2020 and takes into account new UWMP Act requirements and changes in demographics, water demand and supplies.

CITY OF SAN BERNARDINO MUNICIPAL CODE

Title 13, *Public Utilities*, Chapter 13.24 Water Supply System, of the City's *Municipal Code* was adopted by the City to assure that the water furnished or supplied by the domestic water supply system under the jurisdiction of the City shall at all times be pure, wholesome, potable, healthful, and in adequate supply and to provide minimum standards for construction, reconstruction, abandonment, and destruction of wells in order to protect underground water resources and provide safe water to persons within the City.

5.16.2 ENVIRONMENTAL SETTING

WATER SUPPLY[1,2]

The San Bernardino Municipal Water Department (SBMWD) was created as a municipal utility by Article 9 of the City of San Bernardino Charter adopted on December 28, 1908. SBMWD is governed by a Board of Water Commissioners who members are appointed by the Mayor, subject to confirmations by the Common Council, and serve a six-year term. The Board was granted the authority and power to establish and collect all water rates, regulate and control the water system for the City. As an urban water supplier providing municipal and industrial water to approximately 40,000 accounts, SBMWD is required to comply with the UWMP Act. The SBMWD's mission is to meet customer's needs by providing high-quality water supply service in the most professional and cost-effective manner possible.

The SBMWD provides domestic water for the City and unincorporated areas of San Bernardino County as well as back-up to the City of Loma Linda. The SBMWD serves an area of approximately 45 square miles (approximately 29,000 acres) located approximately 60 miles east of the City of Los Angeles with 35,246 service connections. The SBMWD produces over 497 gallons per capita per day with the average consumption use reaching 330 gallons per capita per day. Currently, the SBMWD available groundwater supply is approximately 49,460 acre-feet per year (ac-ft/yr) or 16.1 billion gallons per year.[3] Water services are provided for single-family, multiple-family, commercial, light industrial, governmental, and landscaping purposes. Other water agencies in the City include East Valley Water District (EVWD) to the east, Redlands Mutual, Loma Linda Municipal, Riverside, and Colton water providers to the south, and West San Bernardino and Rialto to the west; refer to *Exhibit 5.16-1*, *Water Service Area Boundaries*. A majority of the Project Area lies within the SBMWD service area.

Currently, SBMWD obtains 100 percent of its supply from groundwater wells in the Bunker Hill Basin. SBMWD's sources of supply consist of 60 groundwater wells and four groundwater treatment plants (Waterman Groundwater Treatment Plant, 19th Street Groundwater Treatment Plant, 17th Street and Sierra Way Groundwater Treatment Plant, and Newmark Groundwater Treatment Plant). The majority of the groundwater production wells are located in the southerly portion of the service area where the local aquifer is thicker and the hydrogeologic conditions are better. However, a significant number of wells are located in the northwestern portion of the

1 *City of San Bernardino Municipal Water Department*, *2005 Urban Water Management Plan*, prepared by CDM, dated December 2005.

2 *City of San Bernardino Municipal Water Department Water Facilities Master Plan*, prepared by CDM, dated August 2007.

3 *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

service area along the Cajon Wash.[4] It should be noted that SBMWD delivers small quantities of water to EVWD for blending purposes as their source of supply exceeds the maximum contaminant level (MCL) established for drinking water standards for nitrate. In return for this water, EVWD delivers groundwater to SBMWD at a 2.5:1 ratio to compensate SBMWD for power costs associated with the difference in elevation at the delivery point and production costs.[5]

SBMWD's service area overlies a portion of the Bunker Hill Basin, also referred to as the San Bernardino Basin. Management and responsibility of the Bunker Hill Basin is coordinated through the San Bernardino Valley Municipal Water District (SBVMWD). The Basin contains in excess of five million ac-ft of high-quality water of which approximately 1.5 million ac-ft of water is currently extractable. The Basin is replenished naturally by local precipitation and by stream flow from rain and snow melt in the San Bernardino Mountains watershed. Water is also artificially recharged by rerouting stream flows to recharge percolation basins.[6]

Water Consumption[7]

SBMWD's billing system segregates accounts in three main groupings: water service, landscape service, and fire service. Each of these main groups is further subdivided into various categories. The water service category, which is generally subdivided into various residential groups, non-residential, municipal, and other smaller categories, represented 87 percent of the annual consumption during the 2000-05 period. Landscape service, which includes separate services for common landscaped areas, assessment districts, and golf courses, represented approximately 13 percent of total consumption. Fire service represented less than one tenth of one percent of the annual consumption during the period. Documented water consumption, billing, for residential purposed represented approximately two-thirds of total consumption in the service area during the 2003-05 period. Non-residential and municipal, including landscaping represented approximately 13 to 15 percent each with the remaining five to seven percent falling under the Other Category. Other includes wholesale deliveries to neighboring agencies, construction water from metered hydrants, the county hospital, and accounted use by the Fire Department.

Water Demand

In year 2005, the City's water demand was approximately 330 gallons of water per person per day (120,450 gallons per person per year). The Citywide total demand was approximately 61,182,330 gallons per day or 22,331,550,450 gallons per year (68,533 acre-feet per year).[8] Existing supply sources are adequate to meet current demands.[9]

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4 *City of San Bernardino Municipal Water Department Water Facilities Master Plan*, prepared by CDM, dated August 2007.

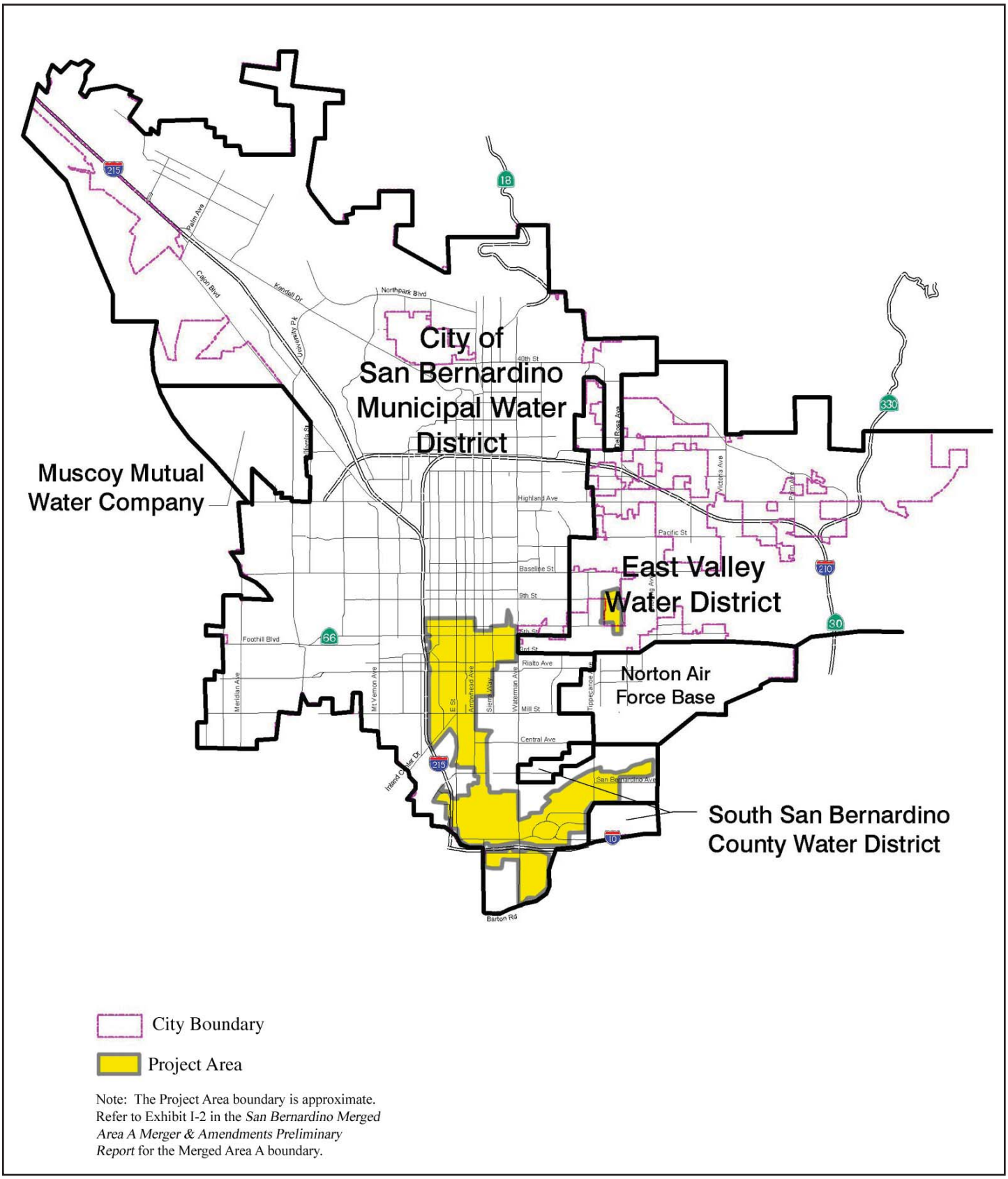
5 *City of San Bernardino Municipal Water Department, 2005 Urban Water Management Plan*, prepared by CDM, dated December 2005.

6 *City of San Bernardino Municipal Water Department Water Facilities Master Plan*, prepared by CDM, dated August 2007.

7 Ibid.

8 *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

9 *City of San Bernardino Municipal Water Department, 2005 Urban Water Management Plan*, prepared by CDM, dated December 2005.



SOURCE: City of San Bernardino General Plan, November 1, 2005.

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ENVIRONMENTAL IMPACT REPORT
SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS

Water Service Area Boundaries

Exhibit 5.16-1

Recycled/Reclaimed Water[10]

Currently, SBMWD does not use recycled water within its service area. Wastewater is treated at the San Bernardino Water Reclamation Plant to a secondary treatment level and then is conveyed to the Rapid Infiltration Extraction (RIX) Tertiary Treatment Facility in the City of Colton. The facility is jointly owned by SBWMD and the City of Colton and is operated under contract by the City of San Bernardino. RIX further treats the wastewater to a tertiary level. All treated effluent from the facility is discharged to the Santa Ana River.

SBMWD continues to explore opportunities to economically and feasibly utilize recycled water. SBMWD estimates that in the future it will be able to potentially recycle an additional 2.25 million gallons per day (MGD) or 2,519 acre feet per year (AF/Y) of water for use within its service area.

Future Water Supply Sources[11]

Potential supply sources available to the SBMWD to meet projected annual and maximum day demands include the following:

- New groundwater wells in the northwestern portion of the service area;
- New groundwater wells in the lower and/or upper pressure zones that would require treatment to remove volatile organics;
- A new surface water treatment plant in the Devils Canyon area to treat imported water from the State Water Project; and
- Water obtained from the North Bunker Hill Basin Regional Water Supply Project and/or other regional supply projects implemented by SBVMWD.

WATER STORAGE[12]

SBMWD currently has 35 storage facilities within the service area with a combined storage capacity of 109 million gallons (MG). The capacity of individual reservoirs ranges from 4,000 gallons as in the Daley Canyon pressure zone to 12 MG for the recently constructed B. Warren Cocke Reservoir in the lower zone. A larger majority of the storage facilities are above ground and are constructed of welded steel. Of the 35 active reservoirs, 20 have a storage capacity of 1.0 MG or larger. Most large reservoirs, greater than 5 MG, are made out of reinforced concrete and are either buried or partially buried. The oldest reservoir, Lytle Creek No. 1, was constructed in 1903 and the newest, B. Warren Cocke), was constructed in 2006, both of which are located in the lower pressure zone.

In addition to storage reservoirs that provide operations, emergency, and fire flow storage to the service area, the SBMWD has an additional 11 forebays or clear wells at selected wells. The

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10 Ibid.

11 *City of San Bernardino Municipal Water Department Water Facilities Master Plan*, prepared by CDM, dated August 2007.

12 *City of San Bernardino Municipal Water Department Water Facilities Master Plan*, prepared by CDM, dated August 2007.

reservoirs have a relatively small storage capacity, less than 0.5 MG, and are used as holding tanks before water produced from wells is pumped directly into the system.

WATER DISTRIBUTION

The SBMWD distributes more than 16.66 billion gallons of water to over 151,000 residents in the City. The distribution system includes approximately 551 miles of water mains, 41,317 active water meters and over 4,000 fire hydrants. Much of the existing pipelines are either unlined, under sized, asbestos filled, or aging. SBMWD facilities also include 60 active wells, 4 treatment plants with capacity of 50 MGD, 32 reservoirs with a total capacity of more than 100 MG of domestic storage water capacity, 27 chlorination facilities, and 66 booster pump stations.[13] There are approximately 630 miles of pipeline ranging from 2 to 78 inches in diameter. Roughly 46 percent of existing pipelines in the distribution system are 50 years old or older. Approximately one-half of these pipelines are located in the lower and upper pressure zones. There are around 68 miles of significantly undersized pipelines, less than 6 inches in diameter. The majority of undersized lines are in the lower and upper pressure zones.[14] The Project Area lies entirely within the lower pressure zone.

Pumping Facilities[15]

SBMWD currently has 17 booster stations to pump water between forebays or pressure zones directly into the distribution system or storage reservoirs. Booster stations have a firm capacity of 200 gallons per minute (GPM) to over 10,000 GPM. Firm capacity is defined as the summation of individual pumping units, assuming the largest unit is not operational at the time of need. Individual pumping units range from a few hundred GPM to over 3,000 GPM.

Pressure Reducing Valves[16]

The major pressure regulating stations, pressure reducing valves, are used to reduce pressure and allow water to be transferred from a higher to a lower pressure zone. However, there are a number of valves that have been installed in the distribution system to reduce pressures within the individual zones to create small sub-zones. Generally, individual pressure reducing valves are set to remain in the closed position and open automatically when pressures in the downstream side of the valve fall below a preset value. Currently, there are over 50 pressure regulating valves in the distribution system.

5.16.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to water supply. The issues presented in the Initial Study

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13 *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

14 *City of San Bernardino Municipal Water Department Water Facilities Master Plan*, prepared by CDM, dated August 2007.

15 Ibid.

16 *City of San Bernardino Municipal Water Department Water Facilities Master Plan*, prepared by CDM, dated August 2007.

Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

- Have sufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements.

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.16.4 PROJECT IMPACTS AND MITIGATION MEASURES

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN INCREASED DEMAND FOR WATER SUPPLIES AND INFRASTRUCTURE WITHIN THE CITY.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Implementation of the proposed project would result in the addition of 1,833 dwelling units, 6,122 persons, 6,200,590 square feet of non-residential development, and 16,601 jobs beyond existing conditions. Future development associated with implementation of the proposed project would result in an increased demand for water supplies and infrastructure within the Project Area. However, this anticipated growth has been planned for within the *General Plan*. As indicated in *Table 5.16-1*, *Proposed Water Demand*, implementation of the proposed project would result in a demand for water supplies by 15,947,080,915 gallons per minute (gpm).

Table 5.16-1
Proposed Water Demand

Land Use	Proposed Development	Generation Factor	Water Demand
Residential	1,833 du	737[1]	1,350,921 gpm
Commercial (Retail/Office/Lodging)*	5,681,674 sf	2,419[2]	13,743,969,406 gpm
Industrial	518,916 sf	4,243[3]	2,201,760,588 gpm
		Total	**15,947,080,915 gpm**

du = dwelling units gpm = gallons per minute s.f. = square feet mgd = million gallons per day
Source: City of San Bernardino Municipal Water Department *Water Facilities Master Plan*, Table 3-3 Projected Water Demands, prepared by CDM, dated August 2007.
1. Applied generation factor for Residential Medium High.
2. Applied generation factor for Commercial General.
3. Applied generation factor for Industrial Light.

Water Supply

The SBMWD produces over 497 gallons per capita per day with the average consumption use reaching 330 gallons per capita per day. Currently, the SBMWD available groundwater supply is approximately 49,460 acre-feet per year (ac-ft/yr) or 16.1 billion gallons per year.[17] The existing supply sources are adequate to meet current demands.[18] According to the SBMWD, water shortages have not been experienced by the Department, nor are they anticipated within buildout of the *General Plan* based on current growth projections, hydrologic conditions, and the amount of groundwater in storage at the Bunker Hill Groundwater Basin.[19] Furthermore, the SBVMWD is legally responsible to maintain the groundwater level in Bunker Hill at the designated safe yield, and is responsible to obtain water through other means such as local runoff to support the population within the San Bernardino Valley Basin.

The *General Plan* includes goals and policies to ensure adequate water supply accommodates new development planned in the City. Additionally, the focus of the *Water Facilities Master Plan* and the *UWMP* is to give highest priority for further development of local supplies, with imported water being used to meet the remaining needs. Included in the plans are a number of proposed water resource management strategies in order to increase production within its jurisdiction.[20] In addition, *Title 13*, *Public Utilities*, Chapter 13.24 Water Supply System, of the City's *Municipal Code* was adopted by the City to assure that the water furnished or supplied by the domestic water supply system under the jurisdiction of the City shall at all times be pure, wholesome, potable, healthful, and in adequate supply and to provide minimum standards for construction, reconstruction, abandonment, and destruction of wells in order to protect underground water resources and provide safe water to persons within the City.

Future development would be reviewed by the City on a project-by-project basis to ensure adequate water supplies are available to accommodate the future projects. Furthermore, the anticipated growth has been planned for within the *General Plan* and the City has anticipated having sufficient water supplies to meet the projected demand for buildout year 2030. As such, water supplies are anticipated to be adequate to serve the proposed project. With adherence to the *General Plan* goals and policies, the *Water Facilities Master Plan*, the *UWMP*, SB 610 and SB 221 requirements, and the City's *Municipal Code*, implementation of the proposed project would result in less than significant impacts to water supplies.

Water Infrastructure

According to the *Water Facilities Master Plan* and the *UWMP*, the City's existing water distribution system is generally adequate in meeting demand. However, the system contains areas of piping that do not provide adequate service due to combinations of pipe age, under sizing, and levels of asbestos. The City's existing water storage capacity is adequate to meet fire flow and storage requirements. The increased water demand associated with the projected growth at buildout year 2030 of the *General Plan* could result in the need for new water supply

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17 *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

18 *City of San Bernardino Municipal Water Department, 2005 Urban Water Management Plan*, prepared by CDM, dated December 2005.

19 *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

20 Ibid.

infrastructure and facilities. As noted earlier, according to the *Water Facilities Master Plan*, potential supply sources available to the SBMWD to meet projected annual and maximum day demands include the following: [21]

- New groundwater wells in the northwestern portion of the service area;
- New groundwater wells in the lower and/or upper pressure zones that would require treatment to remove volatile organics;
- A new surface water treatment plant in the Devils Canyon area to treat imported water from the State Water Project; and
- Water obtained from the North Bunker Hill Basin Regional Water Supply Project and/or other regional supply projects implemented by SBVMWD.

The *General Plan* includes goals and policies that require existing water distribution infrastructure to be replaced as needed to support existing and new development, as well as to maintain healthy and safe drinking water for all residents and businesses. New development would be required to pay its share of the costs of infrastructure improvements necessary to accommodate the project. The *General Plan* includes a policy that requires new development proposals to bear the cost to improve wastewater collection and treatment facilities, water supply transmission, distribution, storage, and treatment facilities, and storm drain and flood control facilities as necessitated by the proposed project. This shall be accomplished either through the payment of fees, or by the actual construction of the improvements. Additionally, the focus of the *Water Facilities Master Plan* and the *UWMP* is to give highest priority for further development of local supplies, with imported water being used to meet the remaining needs. Moreover, *Title 13*, *Public Utilities*, Chapter 13.24 Water Supply System, of the City's *Municipal Code* was adopted by the City to assure that the water furnished or supplied by the domestic water supply system under the jurisdiction of the City shall at all times be pure, wholesome, potable, healthful, and in adequate supply and to provide minimum standards for construction, reconstruction, abandonment, and destruction of wells in order to protect underground water resources and provide safe water to persons within the City. With adherence to the *General Plan* goals and policies, the *Water Facilities Master Plan*, the *UWMP*, and the City's *Municipal Code*, implementation of the proposed project would result in less than significant impacts to water infrastructure and facilities.

General Plan Goals and Policies:

UTILITIES ELEMENT

Goal 9.3 **Provide water supply, transmission, distribution, storage, and treatment facilities to meet present and future water demands in a timely and cost effective manner.**

Policy 9.3.1 Provide for the construction of upgraded and expanded water supply, transmission, distribution, storage, and treatment facilities to support existing and new development.

[21] *City of San Bernardino Municipal Water Department Water Facilities Master Plan*, prepared by CDM, dated August 2007.

Policy 9.3.2 Maintain and replace existing water supply, transmission, distribution, storage systems, and treatment facilities as necessary.

Policy 9.3.3 Require adequate water supply, transmission, distribution, storage, and treatment facilities to be operational prior to the issuance of certificates of occupancy.

Policy 9.3.4 Monitor the demands on the water system and, as necessary, manage development to mitigate impacts and/or facilitate improvements.

Policy 9.3.5 Impose limits on new water hook-ups, if necessary, to comply with available domestic water supply.

Policy 9.3.6 Request the Board of Water Commissioners to evaluate the Water System Master Plan, as necessary, to accurately determine which water facilities will be needed to serve present and future growth in the City.

Policy 9.3.7 Request the Board of Water Commissioners to evaluate the Water System Master Plan, as necessary, to accurately determine which water facilities will be needed to serve present and future growth in the City.

Goal 9.10 Ensure that the costs of infrastructure improvements are borne by those who benefit.

Policy 9.10.1 Require that new development proposals bear the cost to improve wastewater collection and treatment facilities, water supply transmission, distribution, storage, and treatment facilities, and storm drain and flood control facilities as necessitated by the proposed project. This shall be accomplished either through the payment of fees, or by the actual construction of the improvements.

Policy 9.10.2 Collect adequate amounts of fees and charges to fund the operation/maintenance of existing facilities and to construct new facilities.

Policy 9.10.3 Review utility, capacity, and infrastructure fees, as well as development, acquisition of service, and monthly service charges on an annual basis to ensure that adequate amounts of fees and charges are collected to fund the operation/maintenance of existing facilities and to construct new facilities.

Policy 9.10.4 Provide public funding support for expansion and upgrading of public utilities and infrastructure when improvements will provide substantial public benefit to the City.

Policy 9.10.5 Allow the formation of benefit assessment districts and community facilities districts, where appropriate, in which those who benefit from specific improvements pay a pro rata share of the costs.

SAFETY ELEMENT

Goal 10.4 **Minimize the threat of surface and subsurface water contamination and promote restoration of healthful groundwater resources.**

Policy 10.4.1 Promote integrated inter-agency review and participation in water resource evaluation and mitigation programs.

Policy 10.4.2 Protect surface water and groundwater from contamination.

Policy 10.4.3 Eliminate or remediate old sources of water contamination generated by hazardous materials and uses.

ENERGY AND WATER CONSERVATION ELEMENT

Goal 13.2 **Manage and protect the quality of the City's surface waters and ground water basins.**

Policy 13.2.1 Coordinate and monitor the City's water conservation efforts on an annual basis and modify or expand them as necessary to ensure their effectiveness.

Policy 13.2.2 Require that development not degrade surface or groundwater, especially in watersheds, or areas with high groundwater tables or highly permeable soils.

Policy 13.2.3 Consider the establishment of incentives, funding programs, or a rebate program for projects that implement water conservation measures, such as replacing aging, leaking, and/or inefficient plumbing with more efficient, water-saving plumbing.

Policy 13.2.4 Require the use of reclaimed water for landscape irrigation and other non-contact uses for industrial projects, golf courses, and freeways.

Policy 13.2.5 Mitigate degradation of the groundwater basins that may have already occurred by existing commercial, industrial, and other uses.

Policy 13.2.6 Require the replacement of existing septic systems with connections to a sanitation collection and treatment system as a condition of reconstruction or reuse.

Policy 13.2.7 Require that new development incorporate improvements to channel storm runoff to public storm drainage systems and prevent discharge of pollutants into the groundwater basins and waterways.

Policy 13.2.8 Require that development in the City's watersheds incorporate adequate landscape and groundcover to prevent slope erosion and significant sedimentation of canyon drainages.

Mitigation Measures:

WAT-1 Prior to the issuance of a building permit for any future development project, the project applicant shall submit a hydraulic analysis to the San Bernardino Municipal Water Department to determine if water infrastructure upgrades (i.e., pipeline diameter increases for fire flow) are necessary. If the hydraulic analysis determines that upgrades are necessary, the project applicant shall be responsible for their fair-share of the improvements.

Level of Significance After Mitigation: Less Than Significant Impact.

5.16.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO WATER RESOURCES INCLUDING INCREASED DEMAND FOR WATER SUPPLIES AND INFRASTRUCTURE WITHIN THE CITY.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: Future development projects would be evaluated by the City of San Bernardino on a project-by-project basis to determine potential impacts to water supplies and infrastructure. The continued assessment of individual projects for impacts to the water supply system, would assure projects would only be approved if adequate water supplies exist at the time of their implementation. Impacts to water supplies and distribution would be mitigated to less than significant on a project-by-project basis. Additionally, the anticipated growth has been planned for within the *General Plan*. Furthermore, adherence to the *General Plan* goals and policies, the *Water Facilities Master Plan*, the *UWMP*, and the City's *Municipal Code* would further reduce any impacts regarding water supply and distribution to less than significant levels. Therefore, implementation of the proposed project would not result in cumulatively considerable water supply and infrastructure impacts.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the General Plan are required.

Level of Significance After Mitigation: Not Applicable.

5.16.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Water supply and infrastructure impacts associated with the proposed project would less than significant with adherence to the General Plan goals and policies, the *Water Facilities Master Plan*, the *UWMP*, and the City's *Municipal Code*. Therefore, no significant unavoidable water supply or infrastructure impacts would occur as a result of the proposed project.

5.16.7 SOURCES CITED

City of San Bernardino General Plan, Chapter 9, Utilities Element, prepared by The Planning Center, dated November 1, 2005.

City of San Bernardino General Plan, Chapter 10, Safety Element, prepared by The Planning Center, dated November 1, 2005.

City of San Bernardino General Plan, Chapter 13, Energy and Water Conservation Element, prepared by The Planning Center, dated November 1, 2005.

City of San Bernardino Municipal Code, Revised November 2, 2009.

City of San Bernardino Municipal Water Department, *2005 Urban Water Management Plan*, prepared by CDM, dated December 2005.

City of San Bernardino Municipal Water Department, Mr. Michael Nevarez, Water Utility Engineer, Letter Correspondence, December 16, 2009.

City of San Bernardino Municipal Water Department *Water Facilities Master Plan*, prepared by CDM, dated August 2007.

City of San Bernardino Website, Water Department, http://www.ci.san-bernardino.ca.us/depts/water/default.asp, accessed March 24, 2010.

Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report, prepared by The Planning Center, dated September 30, 2005.

SECTION 5.17
WASTEWATER

5.17 WASTEWATER

This section identifies existing conditions within the City of San Bernardino and provides an analysis of potential impacts to wastewater that could result from implementation of the proposed project. This section is based on information obtained from the *General Plan* Utilities Element, the *San Bernardino Final General Plan Update and Associated Specific Plans Environmental Impact Report*, the *2007 City of San Bernardino Municipal Water Department Water Facilities Master Plan* (*Water Facilities Master Plan*), the *2005 Urban Water Management Plan* (*UWMP*), the San Bernardino Municipal Water Department (SBMWD), the City of San Bernardino Municipal Code, and the City of San Bernardino website.

5.17.1 REGULATORY SETTING

The regulatory oversight for wastewater is governed at both the Federal and State levels of government and includes the following agencies:

- Regional Water Quality Control Board (RWQCB), Santa Ana Region
- County of San Bernardino
- City of San Bernardino Municipal Water Department (SBMWD)
- City of San Bernardino Valley Municipal Water District (SBVMWD)
- East Valley Municipal Water District (EVWD)
- City of Loma Linda
- City of Colton

CITY OF SAN BERNARDINO MUNICIPAL CODE

Title 13, *Public Utilities*, Chapter 13.32 Wastewater Facilities, of the City's *Municipal Code* was adopted by the City to provide for the regulation of wastewater discharges in accordance with the federal government's objectives of general pretreatment regulations as stated in Section 403.2 of Title 40 of the *Code of Federal Regulations* (*CFR*) and amendments thereto which are for the following purposes:

1. To prevent the introduction of pollutants into the POTW which will interfere with the operation of the Water Reclamation Plant (WRP), including interference with its use or disposal of municipal biosolids;
2. To prevent the introduction of pollutants into the POTW which will pass through the treatment works, inadequately treated, to the receiving waters or otherwise be compatible with such works;
3. To improve opportunities to recycle and reclaim wastewater and biosolids;
4. To enable the SBMWD to comply with its National Pollutant Discharge Elimination System (NPDES) Permit conditions, biosolids use and disposal requirements, and any other federal or state laws to which the WRP is subjected;
5. To provide for the equitable distribution of the costs associated with the operation of the WRP; and

6. To protect and preserve the health and safety of the citizens and personnel of the SBMWD and adjacent service areas.

5.17.2 ENVIRONMENTAL SETTING

The sewer system plays a crucial role in ensuring that the community remains clean, healthy, and enjoyable. Although most of the sewer system is adequate for existing and future development, a number of areas will require additional facilities to keep pace with future needs. The City's sewer system must be able to accommodate the quantity of wastes generated by residents and businesses if the City is to continue to grow and prosper.[1]

WASTEWATER TREATMENT

San Bernardino Water Reclamation Plant (WRP)

The SBMWD owns and has operated the WRP, also known as the Margaret H. Chandler Water Reclamation Plant, since 1973, treating both residential and industrial wastewater. The WRP is located at 399 Chandler Place, within the Southeast Project Area.[2] The WRP is staffed continuously by a select team of certified operators and mechanics who utilize modern wastewater treatment processes to maintain compliance with required discharge limits.

Primary and secondary treatment processes are employed to meet the discharge standards specified in the NPDES issued to the WRP by the State of California RWQCB. The WRP treatment process includes grit removal, screening, primary clarification, and ensuring all water discharged into the Santa Ana River is properly treated. The WRP is a secondary treatment facility serving a population of over 185,000 including the cities of San Bernardino and Loma Linda, the East Valley Water District customers, the San Bernardino International Airport, the Patton State Hospital, and parts of San Bernardino County; refer to *Exhibit 5.17-1, Sewerage Service Area Boundaries*. The wastewater facility, including both primary and secondary treatment, has the capacity to process 33 million gallons per day (MGD) and currently processes 28 MGD. In March 1996, the City and the City of Colton jointly opened the Rapid Infiltration and Extraction (RIX) facility, where secondary-treated water undergoes the final filtering and disinfecting process to produce wastewater that is superior or equivalent to that produced by conventional filtration systems and is suitable for recycling into the Santa Ana River. The RIX (tertiary treatment) facility has a total capacity of 40 MGD and currently treats 33 MGD of secondary treated wastewater from the WRP and Colton's treatment facility. Natural bio-filtration is employed through the use of percolation basins and ultra-violet disinfection is used to meet the State of California Title 22 tertiary standards, in addition to the discharge standards specified in a separate NPDES permit issued to the RIX facility.[3] Title 22 standards established water quality standards and reliability criteria dependent upon the end use of recycled water to protect public health. Both secondary and tertiary treated wastewater can

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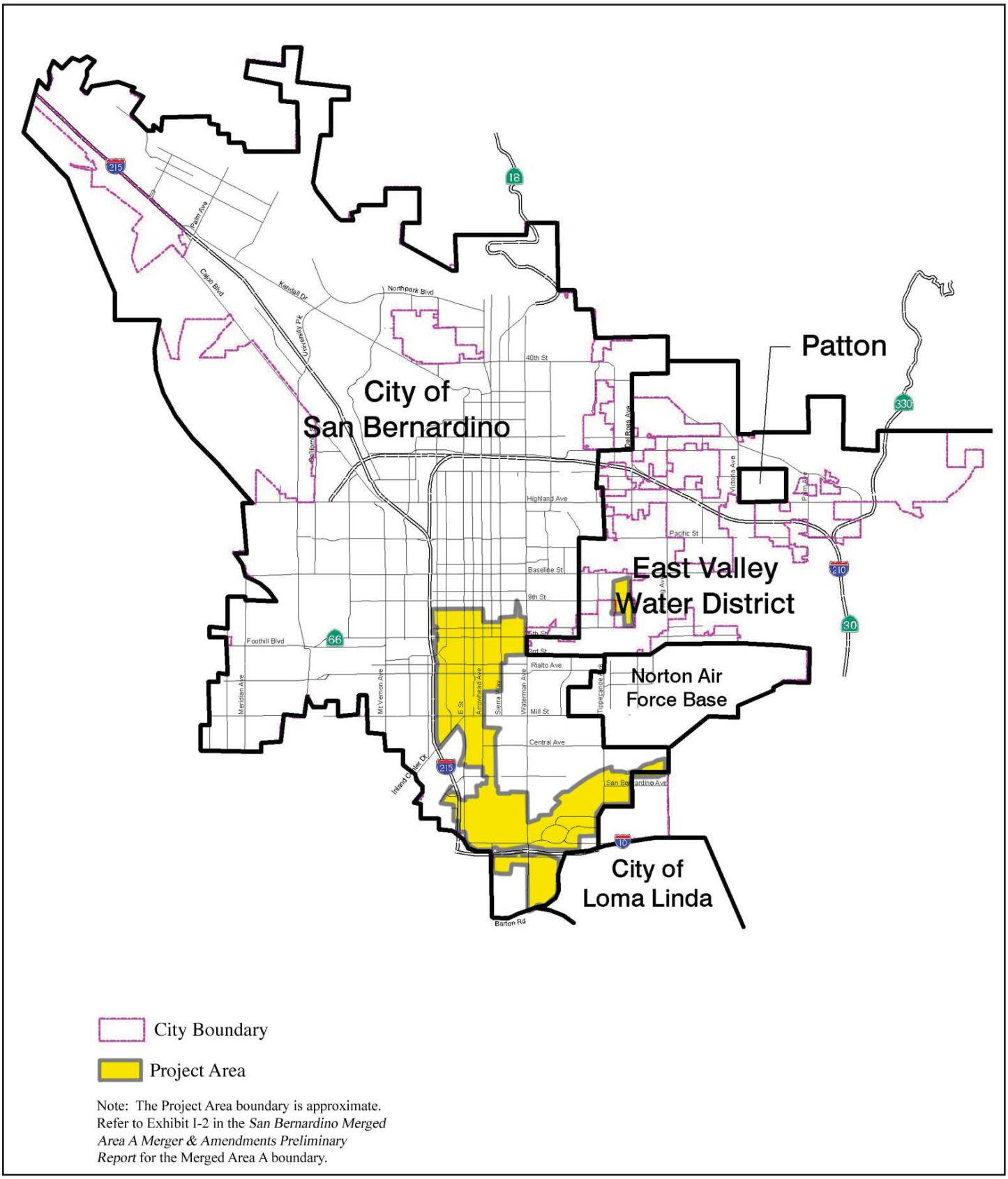
1 *City of San Bernardino General Plan*, Chapter 9, Utilities Element, prepared by The Planning Center, dated November 1, 2005.

2 *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

3 City of San Bernardino website, Water Department, http://www.ci.san-bernardino.ca.us/sbmwd_divisions/water_reclamation/water_reclamation_homepage.asp, accessed March 25, 2010.



SOURCE: City of San Bernardino General Plan, November 1, 2005.

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ENVIRONMENTAL IMPACT REPORT
SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS

Sewerage Service Area Boundaries

Exhibit 5.17-1

meet Title 22 standards ultimately dependent upon the end use of the water.[4] RIX treated wastewater consistently meets or exceeds required discharge standards and is often superior in quality to effluent produced through conventional tertiary facilities. The WRP is committed to reusing the resources generated during the wastewater treatment processes. The WRP recently completed the installation of a co-generation facility which uses the methane gas produced during the treatment processes as a source of energy. The highly valuable energy source is used to fuel two 750-watt generators which supply electricity to the WRP. This minimizes the amount of electricity required to be purchased for the overall operation.[5]

WRP Maintenance[6]

The Water Reclamation Division is comprised of four separate maintenance sections with a total staff of 31. Each section is a major player in the repair and maintenance of the plant mechanical and electrical equipment, electrical switchgear, computer based process controls, buildings, and grounds. Each section performs routine scheduled preventative maintenance work on the equipment within their work discipline. Additionally, they perform minor and major repairs, in addition to, rebuilds and installation of new equipment.

Electrical/Instrumentation Staff: Staff maintains all plant electrical equipment, motor control centers, power distribution systems, programming and troubleshooting plant process control computers, as well as, calibrating and testing pressure and flow monitoring instruments. A significant area of responsibility is the weekly testing and calibration of various instruments to assure that processed water meets state required standards.

Maintenance Mechanics: Staff maintains four large industrial digester gas fueled engines, pumps capable of moving approximately 13,000 gallons of water per minute, belt pressed to dewater processed material, conveyor systems to move dewatered material to trucks for disposal, and the mechanical equipment within the concrete process tanks.

Facilities Maintenance: Staff maintains approximately 20 buildings, the 85 plus acres of plant grounds and nearly 100 trees. Additionally, staff maintains the building heating and cooling systems, plumbing systems and building roofs. A major part of the work is devoted to painting plant buildings and the plant process piping systems.

RIX Facility Maintenance: Staff maintains the 78-acre RIX facility. The facility consists of 10 water percolation ponds ranging in size from 3 to 6 acres. This is accomplished by heavy road construction type equipment used to remove dirty sand from the basin and replacing it with clean washed sand from the on-site sand washing facilities. Staff is responsible for the service and repair of 35 deep well pumps, transmission piping and sand bed water filter. The water extracted from the ground or processed through the

4 *City of San Bernardino Municipal Water Department, 2005 Urban Water Management Plan*, prepared by CDM, dated December 2005.

5 City of San Bernardino website, Water Department, http://www.ci.san-bernardino.ca.us/sbmwd_divisions/water_reclamation/water_reclamation_homepage.asp, accessed March 25, 2010.

6 City of San Bernardino website, Water Department, http://www.ci.san-bernardino.ca.us/sbmwd_divisions/water_reclamation/maintenance.asp, accessed March 25, 2010.

DynaSand filter beds is passed through a five channel, 15 bank UV system to assure the water meets required standards of the Regional Water Quality Control Board and the State of California Department of Health Services.

WRP Operations[7]

The Operations Section is responsible for the day-to-day operation of the WRP. The Operations Section is staffed by 24 highly trained wastewater treatment plant operators who are certified by the State of California Water Resources Control Board. The primary objective of the team of certified operators is to control the processes which are used to treat the raw wastewater received at the WRP. A variety of treatment processes are used to filter the wastewater to meet or exceed the discharge requirements included in the NPDES Permit issued by the State of California. These processes include the following:

Preliminary Treatment: The initial treatment step which is designed to remove large particles and debris from the wastewater through the use of Bar Screens and Grit Chambers. The process helps prevent damage from occurring to expensive pumps and other in plant equipment.

Primary Clarification: The step involves the use of large circular retention basins to separate the settleable and floatable solids from the wastewater. Gravity and retention time are used to complete the separation process.

Activated Sludge: The step includes the initiation of a biological process used to oxidize ammonia contained in the wastewater. The ammonia contained in the wastewater is extremely harmful to aquatic life. Ammonia is an inorganic pollutant that enters the waste stream generated from human waste and places a heavy oxygen demand on receiving waters. The wastewater which enters the aeration basins is injected with dissolved oxygen by means of powerful process blowers. In the presence of dissolved oxygen, ammonia is biologically oxidized to its less toxic from of nitrate.

Secondary Clarification: The step is very similar to the system used in primary clarification. The process uses gravity and retention time to settle out additional particulates from the wastewater. Polymer is added to the wastewater during this process to assist in removal of the smaller particulate material which is not removed in the primary clarification process.

Solids Handling: Solid material removed during the earlier treatment processes is dewatered by means of centrifuge unit and belt press. The remaining bio solids are hauled offsite to an approved disposal location.

Tertiary Treatment: The step is completed offsite at the RIX. The process involves the discharge of treated wastewater received from the WRP into a series of retention basins to naturally filter the waste water. The wastewater percolates through the sand media located in the basins and is rapidly extracted. The extracted water is removed of smaller particulate material in addition to harmful/pathogenic organisms.

[7] City of San Bernardino website, Water Department, http://www.ci.san-bernardino.ca.us/sbmwd_divisions/water_reclamation/operations.asp, accessed March 25, 2010.

Disinfection: The final step of the treatment process is the disinfection. Wastewater extracted from the RIX retention basins is pumped through a series of channels which house banks of ultra-violet lamps. The radiation emitted from the ultra-violet lamps disinfects the wastewater. The process alters the ability of harmful micro-organisms to reproduce and thereby prevents any micro-organisms from being discharged to the receiving waters.

WASTEWATER COLLECTION

In 2002, the City Public Works and Engineering Division prepared a master plan for the wastewater collection system that identified the existing conditions and potential improvements to the system. The collection system varies in size from 4 to 54 inches. The report indicated that flows are fed into the WRP by three trunk lines: Arrowhead, "E" Street, and the East Side trunks. The average inflows for the three trunk lines recorded by the City are listed in *Table 5.17-1, San Bernardino Wastewater Reclamation Plant Trunk Lines*.[8]

Table 5.17-1
San Bernardino Wastewater Reclamation Plant Trunk Lines

Trunk Name/Location	Size (inches)	Material	Q_{avg}*(MGD)
Arrowhead: Arrowhead Avenue & Orange Show Road	54	RCP	8.04
"E" Street: "E" Street & Chandler Place	20	CI	3.06
East Side: Amos Avenue & Dumas Street	54	RCP	14.23

Source: *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, Section 5.15 Utilities and Service Systems, Table 5.15-2, Page 5.15-11, prepared by The Planning Center, dated September 30, 2005.

In addition to the flows generated by the City, the WRP also collects flows from the adjacent City of Loma Linda to the south and EVWD to the east. Loma Linda uses two interconnections (18" and 21") to the City's collection system located south of the Interstate 10 Freeway just east of Waterman Avenue. The flows are routed to the WRP via the "E" Street trunk line where flows from the southern and south-central portion of the City are also collected. To the east of the City, the EVWD uses a single 48-inch interconnection to the City's wastewater collection system. These flows are routed to the East Side trunk line along with flows generated by the southeast corner of the City. The Arrowhead trunk line collects the remaining portion of the City that equates to 56 percent of the average annual total inflow into the WRP. The reports also explains that because the City is a foothill community, there are various sized drainage channels cutting through that present problems for gravity fed pipelines causing the City to place many siphons and lift stations throughout the system. At the time the report was compiled, there was an estimated 45,000 connections to the system served by San Bernardino and out of a total of 750,718 linear feet of pipeline, 49,345 feet of pipe was determined to have deficiencies in terms of pipe capacity.[9]

[8] *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.
[9] Ibid.

The City Public Works is responsible for the design and construction of wastewater collection facilities in the City. Operation and maintenance of wastewater collection facilities is the responsibility of the Public Services Department.[10] Other wastewater collection facilities within the City are operated by the EVWD, San Bernardino International Airport and Trade Center, and the City of Loma Linda, refer to *Exhibit 5.17-1*. The EVWD provides service to the eastern portion of the City, Loma Linda provides services to the southern portion of the City and all wastewater obtained is routed to the City's collection facilities prior to treatment at WRP.[11]

SEPTIC TANKS

The City of San Bernardino allows the use of septic systems on a limited basis as outlined in Section 13.31.500 of the City's *Municipal Code*.[12] Older portions of the City or large lot residential developments are permitted limited use of septic tanks. These areas include the following: northwest of the Little League Drive; portions of the Verdemont area with parcels larger than one acre; Palm Avenue and Industrial Parkway Area; Cajon Boulevard and June Street Area; and northwest of the Interstate 215/30 Interchange.[13] Septic tanks are permitted by the California RWQCB pursuant to applicable City and County policies. Therefore, portions of the City's Sphere of Influence are being developed with septic systems.[14]

5.17.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to wastewater. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Exceed wastewater treatment requirements of the Santa Ana Regional Water Quality Control Board.
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

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10 *City of San Bernardino General Plan*, Chapter 9, Utilities Element, prepared by The Planning Center, dated November 1, 2005.

11 *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

12 Ibid.

13 *City of San Bernardino General Plan*, Chapter 9, Utilities Element, prepared by The Planning Center, dated November 1, 2005.

14 *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

Based on these significance standards, the effects of the proposed project have been categorized as either "no impact", a "less than significant impact", or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a "significant unavoidable impact."

5.17.4 PROJECT IMPACTS AND MITIGATION MEASURES

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN INCREASED DEMAND FOR WASTEWATER SERVICES AND INFRASTRUCTURE IN THE CITY.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Implementation of the proposed project would result in the addition of 1,833 dwelling units, 6,122 persons, 6,200,590 square feet of non-residential development, and 16,601 jobs beyond existing conditions. Future development associated with implementation of the proposed project would result in an increased demand on the existing sewer system from increased sewage flows within the Project Area. However, this anticipated growth has been planned for within the *General Plan*. As indicated in *Table 5.17-2, Net Increase in Wastewater Generation,* implementation of the proposed project would generate an additional 458,289 gallons per day (GPD) of effluent sewer flow to the existing sewer conveyance system.

Table 5.17-2
Net Increase in Wastewater Generation

Land Use	Proposed Development	Generation Factor*	Wastewater Generation
Residential	1,833 du	du (3/4) (210.75 gpd)[1]	289,729 gpd
Commercial (Retail/Office/Lodging)*	6,200,590 sf	.023 gpd / sf[2]	142,614 gpd
Industrial	518,916 sf	.05 gpd / sf[3]	25,946 gpd
		Total	**458,289 gpd**

du = dwelling units gpd = gallons per day mgd = million gallons per day s.f. = square feet
* Source: City of San Bernardino Municipal Water Department Sewage Flow Guide for Domestic Waste Discharge, received from City of San Bernardino Municipal Water Department, Mr. Michael Nevarez, Water Utility Engineer, Email Correspondence, March 25, 2010.
1. Applied generation factor for Apartments (4 or more units).
2. Applied generation factor for Retail store (excl. food service/laundry).
3. Applied generation factor for Industrial; light manufacturing.

Individual developments would be reviewed by the City on a project-by-project basis to determine if sufficient sewer capacity exists to serve the specific development. The City requires new developments to pay a sewer service charge to maintain sewer systems within the City *Municipal Code* Chapter 13.08, Connection with Public Sewer. The City charges fees for the privilege of connecting to its sewerage system or increasing the existing strength and/or quantity of wastewater attributable to a particular parcel or operation already connected. The fees are required to construct new sewer infrastructure and/or incremental expansions to the existing sewerage system to accommodate individual development, which would mitigate the

impact of the development on the sewerage system. The City would only allow new developments to connect to its sewer systems if there is sufficient capacity or planned expansions of its facilities to accommodate new developments proposed. Therefore, future development would not be permitted to exceed the capacity of wastewater conveyance systems or treatment facilities, since adequate capacity must be demonstrated in order to contribute flows to the system.

Furthermore, the WRP has the capacity to process 33 million gallons per day (MGD) and currently processes 28 MGD. In March 1996, the City and the City of Colton jointly opened the Rapid Infiltration and Extraction (RIX) facility, where secondary-treated water undergoes the final filtering and disinfecting process to produce wastewater that is superior or equivalent to that produced by conventional filtration systems and is suitable for recycling into the Santa Ana River. The RIX (tertiary treatment) facility has a total capacity of 40 MGD and currently treats 33 MGD of secondary treated wastewater from the WRP and Colton's treatment facility.

Additionally, the City's *General Plan* accounts for the increased growth and includes goals and policies to reduce potential growth related impacts associated with wastewater services and facilities. The *General Plan* Utilities Element includes goals and policies to provide a system of wastewater collection and treatment facilities that will adequately convey and treat wastewater generated by existing and future development in the City's service area. Further goals and policies ensure that all wastewater collection and treatment facilities are operated to maximize public safety. With adherence to the City's *Municipal Code*, *General Plan* goals and policies, and mitigation requiring individual development projects to verify that sufficient wastewater transmission and treatment plant capacity is available to serve the proposed development, impacts would be reduced to a less than significant level.

General Plan Goals and Policies:

UTILITIES ELEMENT

Goal 9.1 **Provide a system of wastewater collection and treatment facilities that will adequately convey and treat wastewater generated by existing and future development in the City's service area.**

Policy 9.1.1 Provide for the construction of upgraded and expanded wastewater collection and treatment improvements to support existing and new development, and to meet usage requirements and maximize cost efficiency, especially in areas where existing systems are deficient.

Policy 9.1.2 Maintain and replace existing wastewater collection and treatment facilities as necessary.

Policy 9.1.3 Require new development to connect to a master planned sanitary sewer system in accordance with the Department of Public Works "Sewer Policy and Procedures". Where construction of master planned facilities is not feasible, the Mayor and Common Council may permit the construction of interim facilities sufficient to serve the present and short-term future needs.

Policy 9.1.4 Evaluate the City's Sewer Collection System Master Plan and the Board of Water Commissioner's Master Plan for Wastewater Treatment Facilities as necessary to accurately determine which collection and treatment facilities will be needed to serve present and future growth in the City.

Policy 9.1.5 Review development proposals for projects within the City's Sphere of Influence and request the County to disapprove any project that cannot be served with adequate public wastewater collection and treatment facilities.

Policy 9.1.6 Ensure that any proposed septic systems comply with the Santa Ana Regional Water Quality Control Board's minimum lot size requirements, which are one-half acre as of 2005.

Goal 9.2 Ensure that all wastewater collection and treatment facilities are operated to maximize public safety.

Policy 9.2.1 Provide for the monitoring of toxic or potentially toxic businesses to prevent contamination of water and wastewater.

Policy 9.2.2 Require, when necessary, pre-treatment of wastewater from industrial sources prior to treatment at the Water Reclamation Facility.

Mitigation Measures:

WW-1 Prior to issuance of a wastewater permit for any future development project, the project applicant shall pay applicable connection and/or user fees to the City.

WW-2 Prior to issuance of a building permit for any future development project, the project applicant shall prepare an engineering study to determine the adequacy of the sewer systems and submit the engineering study to the City for review and approval.

WW-3 Prior to issuance of a building permit for any future development project, the project applicant shall provide evidence that the City and the City of San Bernardino Municipal Water Department has sufficient wastewater transmission and treatment plant capacity to accept sewage flows from buildings for which building permits are being requested.

Level of Significance After Mitigation: Less Than Significant Impact.

5.17.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO WASTEWATER SYSTEMS, INCLUDING INCREASED DEMAND AND INFRASTRUCTURE FACILITIES WITHIN THE CITY.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Development associated with implementation of the proposed project would result in an increased demand on the existing sewer system from increased sewage flows within the Project Area. The SBMWD presently has no deficiencies or significant treatment capacity limitations. The availability of adequate treatment capacity along with the continuous assessment of capacity flows will be determined on a project-by-project basis. Individual development projects would be required to verify that existing capacity exists to convey and treat the potential wastewater generated with the new development. Additionally, the City's *General Plan* accounts for the increased growth and includes goals and policies to reduce potential growth related impacts associated with wastewater services and facilities. With adherence to the City's *Municipal Code*, *General Plan* goals and policies, and mitigation measures (WW-1, WW-2, and WW-3), would reduce potential cumulative impacts to wastewater services and facilities to a less than significant level.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: Refer to Mitigation Measures WW-1 through WW-3. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

5.17.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Wastewater impacts associated with implementation of the proposed project would be less than significant with compliance with the *General Plan* goals and policies and the recommended mitigation measures. Therefore, no significant unavoidable wastewater impacts would occur as a result of the proposed project.

5.17.7 SOURCES CITED

City of San Bernardino General Plan, Chapter 9, Utilities Element, prepared by The Planning Center, dated November 1, 2005.

City of San Bernardino *Municipal Code*, Revised November 2, 2009.

City of San Bernardino Municipal Water Department, *2005 Urban Water Management Plan*, prepared by CDM, dated December 2005.

City of San Bernardino Municipal Water Department, Mr. Michael Nevarez, Water Utility Engineer, Letter Correspondence, December 16, 2009 and Email Correspondence, March 25, 2010.

City of San Bernardino Municipal Water Department Water Facilities Master Plan, prepared by CDM, dated August 2007.

City of San Bernardino Website, Water Department, http://www.ci.san-bernardino.ca.us/sbmwd_divisions/water_reclamation/water_reclamation_homepage.asp, accessed March 25, 2010.

Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report, prepared by The Planning Center, dated September 30, 2005.

SECTION 5.18
SOLID WASTE

5.18 SOLID WASTE

This section identifies existing solid waste disposal facilities within the City of San Bernardino and provides an analysis of potential solid waste impacts associated with the implementation of the proposed project. This section is based on information obtained from the *General Plan* Utilities Element, the *San Bernardino Final General Plan Update and Associated Specific Plans Environmental Impact Report*, the City of San Bernardino *Municipal Code*, the City of San Bernardino website, and the City of San Bernardino Integrated Waste Management Division.

5.18.1 REGULATORY SETTING

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 (AB 939) requires every city and county in the state to prepare a Source Reduction and Recycling Element (SRRE) to its Solid Waste Management Plan, that identifies how each jurisdiction will meet the mandatory state waste diversion goal of 50 percent by and after the year 2000. The purpose of AB 939 is to "reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible."

The term "integrated waste management" refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. AB 939 established a waste management hierarchy as follows:

- Source Reduction;
- Recycling;
- Composting;
- Transformation; and
- Disposal.

California State Mandated Solid Waste Diversion[1]

As landfills reach their capacities and new landfill sites become increasingly difficult to establish, the need to reduce solid waste generation is significant. State law currently requires that local jurisdictions divert at least 50 percent of their solid waste from landfills through recycling, conservation, and composting. The City of San Bernardino is required to comply with State regulations.

Currently, there no collection service deficiencies and all sites utilized by the City are considered to adequate. In 2002, the City diverted 45 percent of its solid waste, five percent less than the 50 percent diversion rates required by the State. Local governments are subject to fines of up to $10,000 per day if the waste diversion goals are not met. Since 1995, the City has received either a Board Approved or Good Faith Effort in reaching waste diversion goals required by the law.

[1] *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

City of San Bernardino Waste Reduction Programs

The City's programs to divert solid waste from landfills include composting, facility recovery, policy incentives, household hazardous waste management, public education recycling, reduction of the amount of solid waste produced, special waste materials, and transformation.[2] In addition to reducing the amount of waste that might otherwise be sent to a landfill, the City's household hazardous waste management program is an important facet in the City's effort to clean up the solid waste stream.

City of San Bernardino Municipal Code

Title 8 Health and Safety, Chapter 8.24 Refuse and Solid Waste sets forth uniform requirements and regulations for the direct and indirect users of the refuse and recycling collection services of the City. The chapter also allows for the City to comply with all applicable state and federal laws, including, but not limited to, the Integrated Waste Management Act of 1989, State Assembly Bill 75, Public Resources Code 49520-49524, California Code Title 14 Division 7 and any subsequent amendments to each.

5.18.2 ENVIRONMENTAL SETTING

EXISTING SOLID WASTE COLLECTION AND DISPOSAL

Solid waste collection within much of the City and a portion of the unincorporated area is provided by the Solid Waste Services and Refuse and Recycling Division of the City of San Bernardino Department of Public Services. Solid waste collection in the remainder of the City is provided by private haulers through franchise contracts with the City. [3] According to the California Integrated Waste Management Board (CIWMB), a total of 206,947 tons of solid waste was deposited in local land fills in 2008. The latest recorded diversion rate was 54 percent reduction in the total amount of refuse produced due to the waste diversion programs in 2006.[4] According to CIWMB in 2005, residential land uses in the City were responsible for disposing 58,454 tons of solid waste while businesses in the City were responsible for 136,392 tons of solid waste resulting in a total of 194,846 tons of solid waste deposited in local land fills. The total amount represents a 45 percent reduction in the total amount of refuse produced due to the waste diversion programs. With diversion the average amount contributed to landfills by each resident would be two pounds of solid waste per day or 730 pounds per year. Employees/businesses produced 13 pounds of solid waste per person per day or 4,745 tons per year after 45 percent waste diversion.[5]

The County of San Bernardino Solid Waste Management Division (SWMD) is responsible for the management and operation of the County's solid waste disposal system which consists of six regional landfills, eight transfer stations, and two community collection centers; refer to *Table*

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2 CalRecycle website, http://www.calrecycle.ca.gov/Profiles/Juris/JurProfile1.asp?RG=C&JURID=426&JUR=San+Bernardino, accessed March 26, 2010.

3 *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

4 CalRecycle website, http://www.calrecycle.ca.gov/Profiles/Juris/JurProfile1.asp?RG=C&JURID=426&JUR=San+Bernardino, accessed March 26, 2010.

5 *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

5.18-1, *Landfill Facilities Serving San Bernardino*. The County contracts with Burrtec Waste Industries for disposal site operations and maintenance. The SWMD also administers the County's solid waste handling franchise program and the refuse collection permit program which authorizes and regulates trash collection by private haulers in the unincorporated area. The City has no active landfills but primarily utilizes the San Timoteo and Mid-Valley landfills. The San Timoteo Landfill is located in the City of Redlands, to the southeast of the City and the Fontana Sanitary Landfill (Mid-Valley) to the west of the City. The San Timoteo landfill is permitted to accept 1,000 tons per day and has an estimated capacity of 20,400,000 cubic yards. The estimated remaining capacity is 10,908,837 tons and has an anticipated closure date of May 2016. Mid-Valley is permitted to accept 7,500 tons per day of solid waste and has an estimated capacity of 101,300,000 cubic yards. The estimated remaining capacity is 670,000 tons and has an estimated closure date of April 2033. The remaining landfills in the County, which could also be used by the City and Project Area, are also shown in *Table 5.18-1*.

Table 5.18-1
Landfill Facilities Servicing San Bernardino

Facility (County)	Capacity (Cubic Yards)	Permitted Daily Tonnage (Tons)	Remaining Capacity (Tons)	Closure Date
San Timoteo Sanitary Landfill (San Bernardino)	20,400,000	1,000	10,908,837	May 2016
Fontana Sanitary Landfill (Mid-Valley) (San Bernardino)	101,300,000	7,500	670,000	April 2033
Colton Sanitary Landfill (San Bernardino)	13,297,000	3,100	610,000	October 2014
Barstow Sanitary Landfill (San Bernardino)	3,584,500	7,500	924,401	May 2010
Landers Sanitary Landfill (San Bernardino)	3,080,000	1,200	765,098	January 2013
Victorville Sanitary Landfill (San Bernardino)	83,200,000	3,000	82,200,000	October 2047
Total:	**224,861,500**	**23,300**	**96,078,336**	-

Source: CalRecycle website, http://www.calrecycle.ca.gov/Profiles/Juris/JurProfile1.asp?RG=C&JURID=426&JUR=San+Bernardino , accessed March 26, 2010.

Regional planning for solid waste issues is conducted by the San Bernardino County Solid Waste Advisory Committee governed by the County Solid Waste Management Plan. The City has a representative serving on the Solid Waste Advisory Committee. Any future solid waste facilities, such as transfer stations and/or landfills, must be incorporated in the County Solid Waste Management Plan.[6]

[6] *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

5.18.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to solid waste. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

- Comply with federal, state, and local statutes and regulations related to solid waste (refer to Section 8.0, Effects Found Not To Be Significant).

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.18.4 PROJECT IMPACTS AND MITIGATION MEASURES

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD POTENTIALLY RESULT IN INCREASED SOLID WASTE GENERATION IN EXCEEDANCE OF LANDFILL CAPACITY.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: Implementation of the proposed project would result in the addition of 1,833 dwelling units, 6,122 persons, 6,200,590 square feet of non-residential development, and 16,601 jobs beyond existing conditions. Future development associated with implementation of the proposed project would result in an increased demand for solid waste collection services and waste disposal at landfill facilities. However, this anticipated growth has been planned for within the *General Plan*.

The State of California has established 50 percent as the minimum waste reduction rate for all cities. Since 1995, the City has received either a Board Approved or Good Faith Effort in reaching waste diversion goals required by the law. Continuation of the recycling program and education on composting efforts would result in achieving the desired goal of 50 percent waste diversion in compliance with AB 939. Implementation of the *General Plan*, and therefore the proposed project, as it was planned for within the *General Plan* buildout, would not hinder efforts to achieve this requirement as educational material on reducing waste, recycling and composting would be provided to commercial and residential users. Therefore, the City is near compliance with the State solid waste reduction mandate.[7]

[7] *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

As indicated in *Table 5.16-2*, *Solid Waste Generated by Proposed Project*, implementation of the proposed project would generate 682,216 lbs/day of solid waste. However, local landfills would be able to handle the amount of refuse from the City and surrounding communities for some time and legislative requirements are in place for planning of new landfills in advance of closure of existing landfills. According to AB 939, jurisdictions are required to begin planning for new landfills when the jurisdiction's primary disposal site reaches its 15-year capacity. Although the remaining County landfills are nearing capacity and closure dates, the landfills do provide alternatives for disposal of waste that help to reduce reliance on the San Timoteo, Mid-Valley, and Colton landfills, which may account for the lower than permitted disposal amounts.[8]

Table 5.18-2
Solid Waste Generated by Proposed Project

Land Use	Proposed Development	Generation Factor	Solid Waste Generation
Residential	1,833 du	5.6 lbs/unit/day[1]	10,265 lbs/day
Commercial (Retail/Office/Lodging)*	6,200,590 sf	0.1 lbs/unit/day[2]	620,059 lbs/day
Industrial	518,916 sf	0.1 lbs/unit/day[2]	51,892 lbs/day
		Total	**682,216 lbs/day**

s.f. = square feet lbs = pounds du = dwelling units
1 ton = 2,000 pounds
1. City of San Bernardino Integrated Waste Management Division, Mrs. Deborah Allen, Environmental Projects Manager, Letter Correspondence, February 11, 2010.
2. *University Hills Specific Plan Environmental Impact Report*, prepared by Michael Brandman Associates, dated October 22, 2008.

Compliance with City and County waste reduction programs and policies would reduce the volume of solid waste entering landfills. Future development projects within the City would be required to comply with applicable State and local regulations, thus reducing the amount of landfill waste by at least 50 percent. Nonetheless, implementation of the proposed project would increase the volume of solid waste generated in the City that is diverted to existing landfills, thus contributing to the acceleration of landfill closures or the use of more distant sites. However, this anticipated growth has been planned for within the *General Plan*. Furthermore, the closure dates for the landfills mostly used by the City and Project Area range from 2014 until 2033. Combined remaining capacities at the landfills would be adequate to accommodate implementation of the proposed project.

The *General Plan* Utilities Element includes goals and policies to provide an adequate and orderly system for the collection and disposal of solid waste to meet the demands of new and existing developments in the City. Additionally, future development resulting from the implementation of the proposed project would be reviewed on a project-by-project basis to ensure that solid waste disposal services and landfill facilities would be available to serve the development. Individual projects would be required to provide adequate storage areas for the storage and collection trash, recyclable, and green waste materials. All development projects would be required to comply with Federal, State, and local statutes and regulations related to

[8] *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

solid waste. Therefore, implementation of proposed project would result in less than significant impacts.

General Plan Goals and Policies:

UTILITIES ELEMENT

Goal 9.5 **Provide an adequate and orderly system for the collection and disposal of solid waste to meet the demands of new and existing developments in the City.**

Policy 9.5.1 Install and maintain public trash receptacles along incorporated City streets in commercial areas and along major arterials.

Policy 9.5.2 Provide regular street sweeping.

Policy 9.5.3 Continue to reduce the amount of solid waste that must be disposed of in area landfills, to conserve energy resources, and be consistent with the County Solid Waste Management Plan and State law.

Policy 9.5.4 Continue to support implementation of regional recycling programs through participation in the County Solid Waste Advisory Committee, the County Solid Waste Management Plan, and appropriate State programs.

Policy 9.5.5 Develop and participate in local recycling programs.

Policy 9.5.6 Develop and implement a program of public education regarding the benefits of recycling.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the General Plan are required.

Level of Significance After Mitigation: Not Applicable.

5.18.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS RELATED TO SOLID WASTE DISPOSAL SERVICES AND LANDFILL DISPOSAL CAPACITY.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: Future development associated with implementation of the proposed project and related cumulative projects served by the same solid waste hauler and/or disposal facilities could result in cumulative impacts to solid waste disposal services and landfill capacity. The City of San Bernardino along with cities in the surrounding area would continue to use common landfill resources, thereby reducing the capacity of landfills. Any additional solid waste incrementally added to existing facilities would shorten the amount of time until they reach maximum capacity. Implementation of the proposed project and related cumulative projects

together could significantly impact the finite resources associated with solid waste disposal. However, local landfills would be able to handle the amount of refuse from the City and surrounding communities for some time and legislative requirements are in place for planning of new landfills in advance of closure of existing landfills.[9]

Individual development projects and related cumulative projects would be required to meet current recycling goals, reducing the amount of solid waste requiring disposal at landfills. Future developments would be reviewed on a project-by-project basis; solid waste impacts would be evaluated based on existing and planned disposal facilities and capacities available. All development projects would be required to comply with Federal, State, and local statutes and regulations related to solid waste. Pursuant to the AB 939, every city and county in the State is required to divert 50 percent of solid waste generated in its jurisdiction away from landfills. Implementation of source reduction measures, such as recycling and converting waste to energy, that would be implemented on a project-by-project basis would serve to divert solid waste away from landfills. The contribution of the proposed project to cumulative impacts associated with increased solid waste would be less than significant. Furthermore, this anticipated growth has been planned for within the *General Plan*. Therefore, the proposed project would not result in cumulatively considerable solid waste impacts.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the General Plan are required.

Level of Significance After Mitigation: Not Applicable.

5.18.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Solid waste impacts associated with implementation of the proposed project would be less than significant with compliance with State and local requirements and the *General Plan* goals and policies. Therefore, no significant unavoidable solid waste impacts would occur as a result of the proposed project.

5.18.7 SOURCES CITED

CalRecycle website, http://www.calrecycle.ca.gov/Profiles/Juris/JurProfile1.asp?RG=C&JURID=426&JUR=San+Bernardino , accessed March 26, 2010.

California Integrated Waste Management Board, website, accessed March 26, 2010.

City of San Bernardino General Plan, Chapter 9, Utilities Element, prepared by The Planning Center, dated November 1, 2005.

City of San Bernardino *Municipal Code*, Revised November 2, 2009.

[9] *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

City of San Bernardino Integrated Waste Management Division, Mrs. Deborah Allen, Environmental Projects Manager, Letter Correspondence, February 11, 2010.

City of San Bernardino Website, Public Services, Integrated Waste Management Division, http://www.ci.san-bernardino.ca.us/depts/publicserv/integrated_waste_management/default.asp accessed March 26, 2010.

Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report, prepared by The Planning Center, dated September 30, 2005.

SECTION 5.19
ELECTRICITY AND NATURAL GAS

5.19 ELECTRICITY AND NATURAL GAS

This section identifies existing conditions within the City of San Bernardino and analyzes potential electricity and natural gas impacts associated with implementation of the proposed project. This section is based on the information obtained from the *General Plan* Utilities Element and Energy and Water Conservation Element, the *San Bernardino Final General Plan Update and Associated Specific Plans Environmental Impact Report*, and the City of San Bernardino website.

5.19.1 REGULATORY SETTING

The California Public Utilities Commission (CPUC) regulates investor-owned electric power and natural gas utility companies in the State of California. Assembly Bill 1890, enacted in 1996, deregulated the power generation industry, allowing customers to purchase electricity on the open market. Under deregulation, the production and distribution of power that was under the control of investor-owned utilities was decoupled. Deregulation allowed other providers the ability to supply electricity to consumers.

5.19.2 ENVIRONMENTAL SETTING

ELECTRICITY

Southern California Edison (SCE) is one of the largest electric utilities in California, serving more than 14 million people in a 50,000 square-mile area of central, coastal and Southern California, excluding the City of Los Angeles and certain other cities. Based in Rosemead, California, the utility has been providing electric service in the region for more than 120 years. SCE's service territory includes more than 180 cities. As of December 2008, SCE had consolidated assets of approximately $32.6 billion. SCE has approximately 17,000 employees.[1]

Electrical service in the City is provided by SCE. SCE owns, operates, and maintains both above ground and underground facilities in the City. Most of SCE's facilities are located in the street right-of-way. SCE will extend electrical service into unserved areas pursuant to SCE's current Rules and Rates. The efficient use of energy and the building design and construction of buildings with energy efficiency in mind are vital to the future.[2]

Electricity can be generated from a combination of natural gas, hydroelectric, nuclear or renewable sources (wind and solar). SCE facilities include hydroelectric, nuclear, and coal power plants as identified below:[3]

- Big Creek Hydroelectric Facilities is located in Shaver Lake, California. This hydroelectric facility began operating in 1911, and consists of 23 hydroelectric generating units in nine powerhouses with a generating capacity of approximately 1,000

[1] Southern California Edison Company, *Our Company*, 2010, http://www.edison.com/ourcompany/sce.asp, assessed March 15, 2010.
[2] *City of San Bernardino General Plan*, Chapter 9, Utilities Element, prepared by The Planning Center, dated November 1, 2005.
[3] California Energy Commission. *California Energy Demand 2008-2018, Staff Revised Forecast*. Staff Final Report. Docket #CEC-200-2007-015-SF2. November 2007.

Megawatts, and six major reservoirs with a storage capacity of more than 560,000 acre-feet.

- San Onofre Nuclear Generating Station (SONGS), located in San Clemente, California, is jointly owned by SCE (75 percent share), San Diego Gas & Electric (20 percent share), and the cities of Riverside and Anaheim (remaining interests). In operation since 1968, SONGS is one of the largest nuclear generating stations in the United States. SONGS' two active units can serve 2.2 million households. Unit 1 of the facility is currently undergoing decommissioning, a process set to end in 2007.

- Four Corners Generating Station is located in Fruitland, New Mexico. Arizona Public Service and SCE jointly own this facility. SCE owns 48 percent (approximately 754 Megawatts) in shares. The plant is fueled by coal and has a generating capacity of approximately 2,048 Megawatts.

- Mohave Generating Station, located in Laughlin, Nevada, is jointly owned by the SCE (56 percent share), the Salt River Project (20 percent share), Nevada Power (14 percent share), and Los Angeles Department of Water and Power (10 percent share). The Mohave Generating Station temporarily ceased operations on December 31, 2005 in order make significant upgrades to the plant and its emissions control systems. The plant owners are working to bring the plant back online as soon as possible. Prior to the facility ceasing operations, the plant's generating capacity was approximately 1,580 Megawatts and utilized low-sulfur coal. Coal was mixed with water off-site and delivered to the Mohave plant via a 275-mile pipeline, the only pipeline coal delivery system in the world.

- Palo Verde Nuclear Generating Station, located in Wintersburg, Arizona, is owned by both SCE (16 percent share) and Arizona Public Service (84 percent share). This facility is fueled by nuclear power and has a generating capacity of 3,600 Megawatts.

Geothermal Wells

Use of geothermal resources results in substantial energy savings and generated revenue for the City of San Bernardino. As discussed in Section 5.9, Geology and Seismic Hazards, approximately 90 to 100 geothermal wells and springs currently in operation, which are concentrated in the Central City, Commerce Center, Tri-City areas, and former Norton Air Force Base. Currently, the San Bernardino Municipal Water Department (SBMWD) maintains and operates two wells capable of pumping 4,300,000 gallons of hot water per day. These wells are located in the southern portion of the City for geothermal energy sources. The usable supply of geothermal water, however, is much greater than what is currently used. The SBMWD uses geothermal resources to provide heat to over 35 offices and buildings including the Civic Center and National Orange Show in the central portion of the City. Use of geothermal heat has resulted in a substantial savings on winter heating bills where it is supplied.[4]

[4] *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

NATURAL GAS

Natural gas service is provided by the Southern California Gas Company. The gas company owns, operates, and maintains underground gas lines in most of the public streets. Extension of service is based on the initiation of a service contract whose policies and extension rules are on file with the CPUC.[5] There are no local wells producing oil or natural gas, coal deposits, refineries and processing facilities or electrical generating stations within the City.[6]

5.19.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to electricity and natural gas. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or result in the need for new or physically altered governmental facilities, the construction of which may cause significant environmental impacts in order to maintain acceptable service ratios, response times or other performance objectives.

Based on these significance standards, the effects of the proposed project have been categorized as either “no impact”, a “less than significant impact”, or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a “significant unavoidable impact.”

5.19.4 PROJECT IMPACTS AND MITIGATION MEASURES

ELECTRICITY

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD INCREASE THE DEMAND FOR ELECTRICITY SERVICES AND FACILITIES.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: Implementation of the proposed project would result in the addition of 1,833 dwelling units, 6,122 persons, 6,200,590 square feet of non-residential development, and 16,601 jobs beyond existing conditions. Development associated with implementation of the proposed project would result in an increased demand for electricity within the Project Area. However, this anticipated growth has been planned for within the *General Plan*. As indicated in

[5] *City of San Bernardino General Plan*, Chapter 9, Utilities Element, prepared by The Planning Center, dated November 1, 2005.

[6] *City of San Bernardino General Plan*, Chapter 13, Energy and Water Conservation, prepared by The Planning Center, dated November 1, 2005.

Table 5.19-1, *Proposed Project Electricity Demand*, development within the Project Area under would result in an increase consumption demand of 96,588 Megawatt –hour (MWh) of electricity annually.

Table 5.19-1
Proposed Project Electricity Demand

Land Use	Proposed Development	Consumption Factor	Electricity Demand
Residential	1,833 du	5626.5 kWh/du/year	10,313 MWh/year
Commercial (Retail/Office/Lodging)*	6,200,590 sf	13.55 kWh/sf/year	84,018 MWh/year
Industrial	518,916 sf	4.35 kWh/sf/year	2,257 MWh/year
TOTAL			**96,588 MWh/year**

kWh = kilowatt-hour MWh = Megawatt-hour sf = square feet du = dwelling unit
* In order to provide a conservative analysis a retail consumption factor was used for commercial/office uses.
Source: Consumption factors obtained from South Coast Air Quality Management District CEQA Air Quality Handbook, April 1993, Table A9-11-A.

The proposed project would develop vacant and underutilized properties, involve public facility improvements, street and traffic improvements, streetscape improvements, economic development, housing rehabilitation, and rehabilitations of blighted properties within the Project Area. The Project Area is located within an urban setting currently served by SCE through existing infrastructure. However, any new development in areas not currently served by SCE would be responsible to pay all applicable fees to connect to the existing electricity infrastructure within San Bernardino.

SCE would update existing facilities or add new facilities in the City based upon specific requests for service from end users. Financial responsibility for any updates or additional facilities would be in accordance with SCE's rules and tariffs. All new development that requires new electricity lines to be installed would be required to pay applicable fees assessed by SCE to extend electricity lines to serve the specific project site. SCE would not provide service to new development if there were not adequately electricity supplies and infrastructure to maintain existing service levels and meet the anticipated electricity demands of the specific development requesting service.

In addition, all new construction in the State of California is subject to the energy conservation standards set forth in Title 24, Part 6, Article 2 of the California Administrative Code. These are prescriptive standards that establish maximum energy consumption levels for the heating and cooling of new buildings. Additionally, the City of San Bernardino is interested in green building practices that would reduce the demand for electricity consumption. Furthermore, the City shall use the allowable geothermal resources as an alternative to electricity. The *General Plan* includes policies related to conservation and energy efficiency as well as geothermal resources. Adherence to these goals and policies would reduce the demand for electricity. Furthermore, this anticipated growth has been planned for within the *General Plan*. As such, impacts are anticipated to be less than significant in this regard.

General Plan Goals and Policies:

UTILITIES ELEMENT

Goal 9.6 **Ensure and adequate, safe, and orderly supply of electrical energy is available to support existing and future land uses within the City on a project level.**

Policy 9.6.1 Require that approval of new development be contingent upon the ability to be served with adequate electrical facilities.

Policy 9.6.2 Underground utilities, including on-site electrical utilities and connections to distribution facilities, unless such undergrounding is proven infeasible.

Policy 9.6.3 Provide adequate illumination of all streets, alleys (under special conditions), and public areas; upgrading areas that are deficient and maintaining lighting fixtures in good working order.

Policy 9.6.4 Require improvements to the existing street light system and/or new street light systems necessitated by a new development proposal be funded by that development.

Policy 9.6.5 Encourage and promote the use of energy-efficient (U.S. Department of Energy "Energy Star" or equivalent) lighting fixtures, light bulbs in residences, commercial, and public buildings, as well as in traffic signals, and signs where feasible.

Goal 9.9 **Use the City's available geothermal resources as an alternative to natural gas and electricity.**

Policy 9.9.1 Provide for the continued development and expansion of geothermal energy distribution lines.

Policy 9.9.2 Provide public funding to expand the existing geothermal production and distribution system.

Policy 9.9.3 Promote the use of geothermal resources particularly in the South San Bernardino Area.

ENERGY AND CONSERVATION ELEMENT

Goal 13.1 **Conserve scarce energy resources.**

Policy 13.1.1 Reduce the City's ongoing electricity use by 10 percent and set an example for residents and businesses to follow.

Policy 13.1.2 Ensure the incorporate of energy conservation features in the design of all new construction and site development in accordance with State Law.

Policy 13.1.3 Consider enrollment in the Community Energy Efficiency Program (CEEP), which provides incentives for builders who attain energy savings 30 percent above the National Model Energy Code, the Energy Star Program, which is sponsored by the United States Department of Energy and the Environmental Protection Agency and encourages superior energy efficiency by residents and businesses, or the State's Energy Efficiency and Demand Reduction Program, which offer rebates and incentives to agencies and developers who reduce energy consumption and use energy efficient fixtures and energy-saving design elements.

Policy 13.1.4 Require energy audits of existing public structures and encourage audits of private structures, identifying levels of existing energy use and potential conservation measures.

Policy 13.1.5 Encourage energy-efficient retrofitting of existing buildings throughout the City.

Policy 13.1.6 Consider program that awards incentives to projects that install energy conservation measures, including technical assistance and possible low-interest loans.

Policy 13.1.7 Ensure that new development consider the ability of adjacent properties to utilize energy conservation design.

Policy 13.1.8 Educate the public regarding the need for energy conservation, environmental stewardship, and sustainability techniques and about systems and standards that are currently available for achieving greater energy and resource efficiency, such as the U.S Green Building Council's "Leadership in Energy and Environmental Design" (LEED) standards for buildings.

Policy 13.1.9 Encourage increased use of passive and active solar and wind design in existing and new development (e.g., orienting buildings to maximize exposure to cooling effects of prevailing winds, daylighting design, natural ventilation, space planning, thermal massing and locating landscaping and landscape structures to shade buildings.

Policy 13.1.10 Consider adopting an ordinance relating to energy conservation, environmental stewardship, and sustainability for new development that incorporates the LEED standards.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the General Plan are required.

Level of Significance After Mitigation: Not Applicable.

NATURAL GAS

- **IMPLEMENTATION OF THE PROPOSED PROJECT COULD INCREASE THE DEMAND FOR NATURAL GAS SERVICES AND FACILITIES.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: Implementation of the proposed project would result in the addition of 1,833 dwelling units, 6,122 persons, 6,200,590 square feet of non-residential development, and 16,601 jobs beyond existing conditions. Development associated with implementation of the proposed project would result in an increased demand for electricity within the Project Area. However, this anticipated growth has been planned for within the *General Plan*. As indicated in *Table 5.19-2*, *Proposed Project Natural Gas Demand*, development within the Project Area would generate a need for an addition of approximately 31,703 kcf per month or 380,436 kcf per year of natural gas over existing conditions.

Table 5.19-2
Proposed Project Natural Gas Demand

Land Use	Proposed Development	Consumption Factor	Natural Gas Demand
Residential	1,833 du	6,665 cf/du/month	12,217 kcf/month
Commercial/Office*	6,200,590 sf	2.9 cf/sf/month	17,982 kcf/month
Industrial	518,916 sf	2.9 cf/sq/month	1,504 kcf/month
TOTAL			**31,703 kcf/month or 380,436 kcf/year**

cf = cubic feet sf = square feet kcf = thousand cubic feet du= dwelling unit
*In order to provide a conservative analysis a retail/shopping center consumption factor is used for commercial/office and industrial uses.
Source: Consumption factors obtained from South Coast Air Quality Management District CEQA Air Quality Handbook, April 1993, Table A9-12-A.

The proposed project would involve the development of vacant and underutilized properties within the Project Area. The Project Area is located within an urban setting currently served by SCGC through existing natural gas infrastructure. However, any future development within the Project Area that requires new infrastructure/gas main extensions would be required to pay any applicable fees assessed by SCGC necessary to accommodate the specific project.

Natural gas service provided would be required to comply with all policies and extension rules of SCGC when contractual arrangements are made with the development applicant. SCGC would not allow new development projects to connect to existing gas main unless the system could maintain adequate service and supply to existing customers and meet the anticipated demands of the project requesting service. Individual development projects would be analyzed to identify project-specific impacts to utility infrastructure on a project-by-project basis.

The *General Plan* includes policies related natural gas as well as geothermal resources. Adherence to these goals and policies would reduce the demand for natural gas. The City shall use the allowable geothermal resources as an alternative to natural gas. Furthermore, this anticipated growth has been planned for within the *General Plan*. As such, impacts are anticipated to be less than significant in this regard.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the General Plan are required.

Level of Significance After Mitigation: Not Applicable.

5.19.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **IMPLEMENTATION OF THE PROPOSED PROJECT COMBINED WITH OTHER RELATED CUMULATIVE PROJECTS COULD RESULT IN CUMULATIVELY CONSIDERABLE ELECTRICITY AND NATURAL GAS IMPACTS.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: Future development within the Project Area, in combination with other future development within SCE and SCGC service areas would result in the long-term and continued use of electricity and natural gas resources. Potential electricity and natural gas impacts associated with new development would be evaluated on a project-by-project basis. All new development that would be served by SCE would be required to pay applicable fees assessed by SCE necessary to provide service to the specific project. SCE would not provide service to new development if there were not adequately electricity supplies and infrastructure to maintain existing service levels and meet the anticipated electricity demands of the specific development requesting service. Future development that requires new infrastructure/gas main extensions would be required to pay all applicable fees assessed by SCGC necessary to accommodate the specific project. Natural gas services provided would be required to comply with all policies and extension rules of SCGC. SCGC would not allow new development projects to connect to existing gas main unless the system could maintain adequate service and supply to existing customers and meet the anticipated demands of the project requesting service. Furthermore, this anticipated growth has been planned for within the *General Plan*. Therefore, the proposed project would not result in cumulatively considerable electricity or natural gas impacts.

General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the General Plan are required.

Level of Significance After Mitigation: Not Applicable.

5.19.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Electricity and natural gas impacts associated with implementation of the proposed project would be less than significant with compliance and/or adherence to the City's *General Plan* goals and policies as well as Federal, State and local regulations. Therefore, no significant unavoidable electricity and natural gas would occur as a result of the proposed project.

5.19.7 SOURCES CITED

California Energy Commission. *California Energy Demand 2008-2018, Staff Revised Forecast*. Staff Final Report. Docket #CEC-200-2007-015-SF2. November 2007.

City of San Bernardino General Plan, Chapter 9, Utilities Element, prepared by The Planning Center, dated November 1, 2005.

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SECTION 6.0
ALTERNATIVES

6.0 ALTERNATIVES

6.1 INTRODUCTION

CEQA Guidelines Section 15126.6 requires the identification and evaluation of reasonable alternatives designed to feasibly achieve the most basic objectives of the project, while avoiding or substantially lessening any of the significant environmental effects of the project. In addition, *CEQA* requires a comparative evaluation of the merits of the alternatives.

Pursuant to *CEQA Guidelines* Section 15126.6 (f)(1), factors that may be taken into account when addressing the feasibility of alternatives include, but are not limited to, as applicable, site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). Although these factors do not present a strict limit on the scope of reasonable alternatives to be considered, they help establish the context in which "the rule of reason" is measured against when determining an appropriate range of alternatives sufficient to establish and foster meaningful public participation and informed decision-making. In this instance for a program EIR for a long-term project like a redevelopment (amendment thereof) and the scope of its potential implementation, alternatives that relate to direct site control or suitability are not relevant or applicable. The alternatives available for a program EIR for a long-term project like a redevelopment (amendment thereof) are discussed here.

6.2 REDEVELOPMENT ISSUES AND OPPORTUNITIES

As part of the redevelopment plan merger and amendment process, the City of San Bernardino identified a series of issues and opportunities that affect how the proposed project is implemented and relate to the identified objectives that the City would like to achieve.

City and Agency Financial Capacity. The City has experienced increased losses in both sales tax revenue and business registration fees due to many recent factors including the downturn in the economy. The precipitous drop in assessed valuations has weakened the City's capacity to fund projects relying on the General Fund.

Tax increment financing generated in the existing Project Areas has yielded lower revenues than predicted by the Agency due to the shortfall in assessed valuations. Five out of the 14 Project Areas in the City have suffered budget shortfalls, which strains the financial capacity of both Agency and City capital improvement projects funded by tax increment revenue. Two of the areas within the Project Area experiencing budget shortfalls are the Central City North and Tri-City Project Areas. These areas are included in the Project Area.

Continuing Blighting Conditions. As a result of high land costs, demolition and remediation costs, redevelopment of the Central City Projects Area has been hindered. Development opportunities, as a result, have transitioned from the downtown area to the Southeast Industrial Park and Tri-City Project Areas, which has further intensified the decline in the downtown area. The proposed project is intended to provide financial stability and to eliminate remaining blighting conditions throughout the Project Area.

Downtown Core Vision/Action Plan. A potential commercial real estate crisis during the next two years, as has been predicted by some economists, could hamper the Agency's ability to partner with the private market to undertake projects and programs to fulfill the Downtown Core Vision/Action Plan. The City's General Fund and tax increment financing shortfalls also greatly restrict its capacity to fund capital improvement projects in the downtown area, which is greatly needed to create favorable conditions for major projects and programs envisioned in the Downtown Core Vision/Action Plan. Private investment or City actions alone cannot reasonably be expected to generate major progress toward implementation of the Downtown Core Vision/Action Plan.

6.3 PROJECT GOALS

The project goals are restated below from Section 3.5. Implementation of the proposed Merged, Amended, and Restated Redevelopment Plan for Merged Area A is intended to achieve the following goals:

- Eliminate and prevent the spread of conditions of blight, including but not limited to: underutilized properties and deteriorating buildings, incompatible and uneconomic land uses, deficient infrastructure and facilities, obsolete structures, parking deficiencies and other economic deficiencies, in order to create a more favorable environment for commercial, industrial, office, residential, and recreational development.

- Encourage the cooperation and participation of residents, businesses, public agencies, and community organizations in the economic revitalization of Merged Area A.

- Promote the economic development of Merged Area A by providing an attractive, well-serviced, well protected environment for residents and visitors.

- Develop property within a coordinated land use pattern of residential, commercial, industrial, recreational and public facilities in Merged Area A consistent with the goals, policies, objectives, standards, guidelines and requirements, as set forth in the City's adopted *General Plan* and Zoning Code.

- Implement design and use standards to assure high aesthetic and environmental quality, and provide unity and integrity to development within Merged Area A

- Eliminate environmental deficiencies and inadequate public improvements including but not limited to inadequate street improvements and off-site parking, inadequate utility systems, and inadequate public services and facilities.

- Develop efficient and safe circulation improvements for vehicles and pedestrians.

- Implement beautification activities to improve the visual image of the City as well as reinforce existing assets and expand the potential of Merged Area A to encourage private investment.

- Encourage, promote and assist in the development and expansion of local commerce and needed commercial and industrial facilities, including providing assistance to finance facilities or capital improvements on property used for industrial or manufacturing

purposes to increase local employment and improve the economic climate within Merged Area A.

- Remove impediments to land disposition and development through improved infrastructure and public facilities, and the acquisition and assemblage of property into usable sites for commercial, industrial, recreational, and public facility development.

- Increase, improve, and preserve housing affordable to very low, low and moderate income households, as well as promote homeownership, consistent with the goals and objectives of the community.

- Encourage the restoration and reuse of older, historic structures which add to the City's character and sense of community identity.

6.4 ALTERNATIVES REJECTED FROM FURTHER CONSIDERATION

In accordance with *CEQA Guidelines* Section 15126.6, an EIR should identify any alternatives that were considered by the Lead Agency but were rejected as infeasible during the scoping process and briefly explain the Lead Agency's determination. Among the factors that may be used to eliminate alternatives from detailed consideration in and EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental effects. The following are alternatives the Agency has rejected, and will not be analyzed further in this EIR.

Elimination of 10-Year Extension. This Alternative would involve the elimination of the 10-year extensions proposed for the Central City North and Meadowbrook/Central City Project Areas, while keeping all other components proposed. This Alternative was deemed infeasible due to the negative impacts that could occur to these two areas by reducing the amount of tax increment that can be collected and used to repay debt and fund blight eliminating programs and projects. For this reason, this Alternative was rejected as a feasible alternative for further consideration.

Elimination of Tax Increment Increase. This Alternative would eliminate the proposed increase in tax increment limits that can be collected within the Project Area, while keeping all other components as proposed. Currently, each Project Area has a separate limit on how much tax increment can be collected. As proposed, the project would increase the tax increment limit to $2.5 billion for the entire area. This Alternative was deemed infeasible due to the negative impacts that could occur as a result of limiting the amount of tax increment within the Project Area. Under the current tax increment limits, the Agency would be limited on the amount of funding that it could collect. Currently, all of the tax increment limits for the Project Areas (except Tri-City) are based on 1.75 times the annual maximum debt service. In the case of the Tri-City area, the limit is fixed at $60 million. Without an increase and consolidation of the tax increment limits, the Agency would be required to track each Project Area and be limited by the limits in currently in place. This could potentially hinder the amount of money that can be collected by the Agency and used to repay debt and fund blight eliminating programs/ projects. For this reason, this Alternative was rejected as a feasible alternative for further consideration.

Eliminate Increase in Bonded Debt Limits**.** This Alternative would not include the bonded debt limit increase proposed by the project. Currently, the aggregate bonded debt limit for the Project Area is $237 million. Under the proposed project, this limit would be increased by $90 million to $327 million. Without this increase, the Agency would not be able to effectively leverage their funds and assets to accomplish the Project Area goals outlined above. For this reason, this Alternative was rejected as a feasible alternative for further consideration.

Alternative Financing**.** This Alternative would include the use of other funding sources besides tax increment financing and bonds to achieve the Project Area goals. These funding sources may include Federal funds through agencies like Environmental Protection Agency (EPA), US Department of Housing and Urban Development (HUD), or Federal Highway Administration (FHWA) or State agencies such California EPA, Caltrans, or California Department of Housing and Community Development (HCD). In addition other funding sources may be obtained from Southern California Association of Governments, Non-Profit groups, other regional or local agencies that focus on redevelopment activities. Although these sources are available, they are not considered reliable and award of funds from many of these sources would involve a competitive award process, as the Agency would have to submit an application for funds along with all other agencies that apply. Since these sources are not guaranteed and most of the funds would be earmarked for specific purposes, it is envisioned that their use as alternative financing would not achieve the identified goals for the Project Area. For this reason, this Alternative was rejected as a feasible alternative for further consideration.

6.5 ALTERNATIVES TO BE ANALYZED

This analysis focuses on alternatives capable of eliminating significant adverse environmental effects or reducing them to less than significant levels, even if these alternatives would impede, to some degree, the attainment of the proposed project objectives. The following alternatives have been identified for analysis in this section:

- No Project Alternative. Under this Alternative, the proposed project, would not be adopted or proceed. This Alternative serves as the “No Project” Alternative in accordance with *CEQA Guidelines* Section 15126.6(e).

- No Merger of the Redevelopment Project Areas Alternative. Under this Alternative, the Agency would undertake the actions of increasing tax increment and bonded debt limits, where feasible, and initiate 10-year extensions in the Central City North and Meadowbrook/ Central City Project Areas; however, the seven Project Areas would not be merged into one Project Area.

ALTERNATIVES ANALYSIS

Only those impacts found significant and unavoidable are relevant in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project. The proposed project would result in significant and unavoidable impacts in one environmental issue area:

- Air Quality/ GHG
    - Project and Cumulative Construction-Related Impacts
    - Project and Cumulative Operational-Related Impacts
    - Cumulative Greenhouse Gas Emission Impacts

Implementation of the identified goals, regional strategies, work programs, and activities can mitigate all other potentially significant impacts to less than significant levels. This section considers alternatives to otherwise avoid or minimize these significant and unavoidable impacts.

6.5.1 NO PROJECT ALTERNATIVE

Implementation of the No Project Alternative assumes that the Agency would take no action in merging the seven Project Areas into one Project Area. In addition, this Alternative would not increase the limitation on the number of dollars that could be allocated to the Project Area through tax increment, nor would it increase the amount of bonded debt that would be outstanding at any one time. Currently without these project elements, both the Central City North and the Tri-City Project Areas would experience short-falls in the amount of funds they are able to collect relative to the amount of debt they have incurred. In addition, the 10-year extensions for both the Central City North and Meadowbrook/Central City Project Areas would not occur under this Alternative, which would affect the amount of tax increment the Agency can collect to repay outstanding debt and implement projects and programs designed to eliminate blight. Finally, under this Alternative, the capital improvement projects added under the proposed project would not be implemented. Any development that would occur as a result of the proposed project would not occur, or would be implemented in a smaller more piecemeal fashion, as a result of this Alternative.

Programs and projects that would provide for public facility improvements, including street and traffic circulation improvements, community beautification, and visual blight removal, would not occur in a comprehensive manner. Instead these actions would occur within each Project Area as funds become available. For those areas where funding is not available, it is envisioned that no actions would be undertaken by the Agency. In addition, no action would be taken by the Agency to assist in the funding of identified programs and projects including a Downtown Core Specific Plan/Overlay, Transit Oriented Developments, and/or Land Use Planning/Infrastructure Improvement projects that would assist in development/redevelopment within the Project Area.

Under this Alternative, the Project Areas would continue to be comprised of dilapidated, outdated, and/or inadequate buildings unable to serve contemporary commercial and industrial uses. Vacant buildings and deteriorated property conditions would continue to plague the Project Areas and result in reduced commercial activity, increase code violations, and underutilized development potential throughout this part of the City. Residential uses intermixed with commercial and industrial activities would also continue to occur in certain parts of the Project Areas. Contaminated or potentially contaminated sites would continue to remain in their existing state and incentives used to remediate these sites and prepare them for redevelopment could not occur. Many areas within this part of the City would continue to stagnate as a result of the lack of reinvestment by the Agency to improve infrastructure, assemble parcels for re-use / redevelopment, and provide catalysts to businesses looking to relocate to this part of the region. The Agency's ability to accomplish these activities under this Alternative would be significantly reduced, which would affect their ability to meet not only the goals of this project, but also the City's goals and policies identified in the *General Plan*.

It is anticipated that without additional redevelopment authority and updated financial mechanisms, existing adverse conditions within the Project Areas would not be corrected and may further contribute to decline of the area, affecting deleteriously physical and economic conditions in surrounding areas as well. Further, without additional Agency activity in the Project Areas to fund public improvements, private investment in the Project Areas would be substantially reduced. The extent of rehabilitation and development within the Project Areas would be limited due to the amount of existing financing capacity within each Project Area and the capability for each Project Area to pay back money borrowed. Issues such as lack of needed infrastructure and public improvements and continued lack of investment due to legal non-conforming and illegal non-conforming uses and lack of compliance with current development standards and uniform codes may not be addressed under this Alternative.

It is acknowledged that the proposed project would involve short- and long-term environmental impacts within the Project Area. However, as analyzed in this EIR, impacts would be less than significant or less than significant with mitigation with the exception of construction- and operational-related air quality impacts, and impacts associated with greenhouse gas emissions. The construction- and operational-related air quality emissions within the Project Area are related to the amount of development currently allowed by the *General Plan*. Since this development is consistent with the assumptions of the *General Plan*, then the impacts identified as a result of the proposed project are consistent with impacts previously analyzed in the *General Plan EIR*. Impacts associated with the No Project Alternative are assumed to be the same as the proposed project, since under this Alternative all development would have to be consistent with the *General Plan* as well.

It is anticipated that the No Project Alternative would result in a similar amount of growth as the proposed project, however the timeframe and mechanism in which this growth would occur is anticipated to be piecemeal in fashion. Based on this assumption it is anticipated that the economic improvement associated with this growth would result in a less viable local economy, less local revenues, less development of existing vacant and underutilized parcels, less commercial, industrial, and residential rehabilitation, less funding for affordable housing, and more constraints upon infrastructure and public improvements. The No Project Alternative would significantly reduce the opportunities for the Agency to eliminate blight and blighting conditions and reduce the ability to implement a comprehensive redevelopment approach to improve the overall Project Area. Although the No Project Alternative would not prohibit or eliminate development activity within the Project Area, it is anticipated that existing conditions would continue in certain areas due to a lack of adequate redevelopment funds, which include limited to no private development and investment due to extensive development constraints and blight and blighting conditions that currently occur within the Project Area.

6.5.2 NO MERGER OF THE REDEVELOPMENT PROJECT AREAS ALTERNATIVE

The No Merger of the Redevelopment Project Areas Alternative assumes that the proposed project would be performed separately for each of the Seven Project Areas that comprise the proposed project. Under this Alternative, the Agency would prepare Restated and Amended Redevelopment Plans for each of the Project Areas that would include, to the extent feasible, increased tax increment and bonded debt limits, and 10-year extensions.

Currently, the bonded debt limits within the seven Project Areas range from $14 million to $60 million, which when aggregated amount to $237 million for all seven areas. Under the proposed project, this limit would be increased to $327 million, resulting in an additional $90 million in bonded capacity that can be leverage against programs and projects/improvements within the single Project Area. In addition, the current limits on receiving tax increment within the seven Project Areas are limited to 1.75 times the annual debt service (except for the Tri-City Project Area, which has a limit of $60 million). Under the proposed project, this amount would be fixed at $2.5 billion, with the ability to use the money throughout the merged and amended Project Area. Under this Alternative, both the bonded debt limits and receipt of tax increment would be limited to each individual Project Area and it is assumed that the aggregated amounts for each would be lower than allowed in the proposed project. In addition, this Alternative would limit the use of redevelopment funds to each of the seven Project Areas, whereas the proposed project would allow funds to be used throughout the entire Project Area.

At this time, both Central City North and Tri City Project Areas are experiencing revenue shortfalls. Under this Alternative, it is unclear whether or not these two areas would be able to increase revenue generation adequately to cover current expenses or to implement the same programs anticipated with the proposed project since the Agency's ability to eliminate blight in the Project Area is heavily reliant on its financing and bonding capacity from tax increment.[1] As a result of this, the current Project Areas would not have adequate funding to implement the blight eliminating plans and programs incorporated into the proposed project. In similar fashion, it is expected that this Alternative would also be constrained by the same issues that constrain the existing Project Areas today.

Rehabilitation and redevelopment of the seven Project Areas under this Alternative, including assistance in funding identified programs and projects including a Downtown Core Specific Plan/Overlay, Transit Oriented Developments, and/or Land Use Planning/Infrastructure Improvement projects within the Project Area would not occur in a comprehensive manner and would be limited to funding availability for each Project Area. The availability of funding would be dependent upon the tax increment limits, bonded capacity, revenue sharing agreements, and outstanding debt service for each area. As previously indicated, two of the existing Project Areas are currently experiencing shortfalls and would be expected to experience similar shortfalls under this Alternative. In addition, as the use of funds is limited to each individual Project Area, when an area expends available funds, the Agency would have to reduce expenditures within that Project Area to ensure additional shortfalls occur, which would ultimately mean that many of the projects and programs identified as part of the proposed project would not be implemented in some of the seven Project Areas.

Overall, this Alternative would restrict the Agency's ability to effectively eliminate blight throughout the Project Areas, by limiting where individual funds can be spent, depending on the financial solvency of individual Project Areas. The result of this would be a piecemeal approach to the elimination of blight within several of the seven Project Areas that would not be as effective as the proposed project. Under this Alternative, it is expected that blighting conditions would remain in the Tri-City and Central City North Project Areas, due to the current shortfalls the Project Areas are experiencing. Although some improvements may occur within the individual Project Areas, it is likely that portions of the Project Areas would continue to be comprised of dilapidated, outdated, and/or inadequate buildings unable to serve contemporary

[1] *Preliminary Report San Bernardino Merged Area A Merger & Amendments*, April 5, 2010, page 128.

commercial/ industrial uses. Vacant buildings and deteriorated property conditions would continue to depress the industrial and commercial portions of the Project Areas, resulting in reduced commercial activity and underutilized developments, and residential uses intermixed with commercial activities would continue to occur within some of the seven Project Areas. It is also expected that contaminated/potentially contaminated sites would continue to remain in their existing state.

It is acknowledged that the proposed project would involve short- and long-term environmental impacts within the Project Area. However, as analyzed in this EIR, impacts would be less than significant or less than significant with mitigation with the exception of construction- and operational-related air quality impacts, and impacts associated with greenhouse gas emissions. The construction- and operational-related air quality emissions within the Project Area are related to the amount of development currently allowed by the *General Plan*. Since this development is consistent with the assumptions of the *General Plan*, then the impacts identified as a result of the proposed project are consistent with impacts previously analyzed in the *General Plan EIR*. Impacts associated with the No Merger of the Redevelopment Project Areas Alternative are assumed to be the same as the proposed project, since under this Alternative all development would have to be consistent with the *General Plan* as well.

It is anticipated that the No Merger of the Redevelopment Project Areas Alternative would result in a similar amount of growth as the proposed project, however the timeframe and mechanism in which this growth would occur is anticipated to be piecemeal in fashion and be related to the adequacy of funding within a given Project Area. Based on this assumption, it is anticipated that the economic improvement associated with this growth would result in a less viable local economy, less local revenues, less development of existing vacant and underutilized parcels, less commercial, industrial, and residential rehabilitation, less funding for affordable housing, and more constraints upon infrastructure and public improvements. The No Merger of the Redevelopment Project Areas Alternative would significantly reduce the opportunities for the Agency to comprehensively eliminate blight and blighting conditions and reduce the ability to implement a comprehensive redevelopment approach to improve the overall Project Area. Although the No Merger of the Redevelopment Project Areas Alternative would not prohibit or eliminate development activity within the Project Areas, it is anticipated that existing conditions would continue in certain areas due to a lack of adequate redevelopment funds, which include limited to no private development and investment due to extensive development constraints and blight and blighting conditions that currently occur within the Project Areas.

6.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126.6 indicates that if the No Project Alternative is the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other alternatives.

The context of an environmentally superior alternative for this EIR is based on the consideration of several factors including the proposed project's objectives, as described in Section 3.5, Project Goals, and earlier in this Section, and the alternative's ability to fulfill the goals with minimal impacts to the surrounding environment.

The No Project Alternative is not considered environmentally superior to the Proposed Project. Under this Alternative, no new actions would be taken by the Agency to eliminate bighted conditions and stimulate private investment in the Project Areas. Existing adverse environmental conditions, such as, but not limited to deteriorated and dilapidated structures, brownfields and other contaminated or potentially contaminated sites, and non-conforming, both legal and illegal, properties that do not meet current development standards or health and safety standards in the uniform codes, in all likelihood would continue to remain in their existing state and will not be corrected or rehabilitated by private owners or investors without the economic development tools of redevelopment. Although some development activity could occur within the Project Areas, the extent of rehabilitation and development would be limited due to the lack of needed infrastructure and public improvements that would occur without the proposed project. Further, the No Project Alternative would reduce the Agency's ability to attain the goals established for the Project Area and would limit its ability to fully implement the goals and policies identified in the *General Plan* when compared to the proposed project.

Under the No Merger of the Redevelopment Project Areas Alternative, adequate funding of blight eliminating project/programs would not be available for the entire Project Area. It is anticipated that under this Alternative some of the individual Project Areas would be able to implement projects and programs to address blight, however there would still be areas that would not due to funding limitations or current/expected shortfalls in revenues. Although some improvements may occur, the extent of the improvements would be limited and piecemeal. Additionally, this Alternative would not allow for a significant increase in the amount of tax increment that could be collected within the Project Areas, nor would it involve an increase in the limit of bonded debt, which would also affect the Agency's ability to achieve the project goals. Without the additional financing and funding mechanisms associated with the proposed project, the Project Area is anticipated to continue experience both physical and economic blight. Therefore, the No Merger of the Project Areas Alternative would not be considered environmentally superior when compared to the Proposed Project. Further, this Alternative would affect the Agency's ability to attain the goals established for the Project Area and would limit its ability to fully implement the goals and policies of the *General Plan* when compared to the proposed project.

Conclusion

As discussed above, the primary goal of the proposed project is to promote and facilitate the revitalization, rehabilitation, and redevelopment of the Project Area, through the implementation of a comprehensive series of programs and projects that would eliminate blight, increase development/redevelopment in the area, and improve/expand needed infrastructure to support existing and future uses. Both Alternatives fall short of achieving the goals established for the Project Area and the goals and policies of the *General Plan*. As noted, impacts associated with the proposed project would be less than significant with the exception of construction- and operational-related air quality impacts and cumulative greenhouse gas emissions. However, the amount of development anticipated within the Project Area is based upon the land uses and buildout assumptions in the *General Plan*, therefore, impacts to air quality under the No Project Alternatives and No Merger of the Redevelopment Project Areas Alternative would be similar to the proposed project, and would not reduce or eliminate a significant impact associated with the proposed project.

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SECTION 7.0
GROWTH INDUCING IMPACTS OF THE PROPOSED ACTION

7.0 GROWTH INDUCING IMPACTS OF THE PROPOSED ACTION

As required by the *CEQA Guidelines*, an Environmental Impact Report (EIR) must include a discussion of the ways in which a project could directly or indirectly foster economic development or population growth, or the construction of additional housing and how that growth would, in turn, affect the surrounding environment (*CEQA Guidelines* Section 15126.2(d)). Growth can be induced in a number of ways, including the elimination of obstacles to growth, or through the stimulation of economic activity within the region. The discussion of removal of obstacles to growth relates directly to the removal of infrastructure limitations or regulatory constraints that could result in growth unforeseen at the time of project approval. Under *CEQA*, induced growth is not considered necessarily beneficial, detrimental, or of little significance to the environment.

In general, a project may foster spatial, economic, or population growth in a geographic area if it meets any one of the criteria identified below:

- The project removes an impediment to growth (e.g., the establishment of an essential public service, or the provision of new access to an area);
- The project results in the urbanization of land in a remote location (leapfrog development);
- Economic expansion or growth occurs in an area in response to the project (e.g., changes in revenue base, employment expansion, etc.); and/or
- The project establishes a precedent-setting action (e.g., a change in zoning or general plan amendment approval).

If a project meets any one of these criteria, it may be considered growth inducing. Generally, growth-inducing projects are either located in isolated, undeveloped, or underdeveloped areas, necessitating the extension of major infrastructure such as sewer and water facilities or roadways, or encourage premature or unplanned growth.

The Southern California region has been experiencing population growth during the past two decades. According to the 1990 and 2000 United States Census, between 1990 and 2000, the City of San Bernardino experienced a population growth of 12.9 percent and San Bernardino County experienced a population growth of 20.5 percent.

According to SCAG projections, the City's population is projected to total 213,318 persons in 2010. According to *General Plan* projections, the City's population is projected to total 276,264 persons by forecast year 2030, which would represent an approximately 29.5 percent increase during this time. The County's population is projected to total 2,182,049 persons by 2010 and 2,957,753 persons by 2030, which would represent an approximate 35.5 percent increase between 2010 and 2030.

As discussed in Section 5.2, Population, Employment, and Housing and stated above, the City's population is projected to total 276,264 persons by 2030. Comparatively, the City's population growth rate would be higher than projected for the County and SANBAG Subregion. However, it is worth noting that the *General Plan* buildout projections assume a larger population in the City than projected by SCAG. Implementation of the proposed project would result in the addition of 6,122 persons, which would account for approximately 2.2 percent of the population growth under the *General Plan*. This anticipated growth has been planned for within the *General Plan*.

The City's current (2010) housing stock was an estimated 60,876 dwelling units. According to the *General Plan*, potential residential development associated with the *General Plan* would allow for a total of approximately 73,367 dwelling units by forecast year 2030. This indicates that between 2010 and 2030, total dwelling units would increase by 20.5 percent. Implementation of the proposed project would result in the addition of 1,833 dwelling units, which would account for approximately 2.5 percent of total dwelling units allowed under the *General Plan*. This anticipated growth has been planned for within the *General Plan*.

The potential growth within the Project Area under the proposed project would primarily consist of infill development, development of underutilized parcels, and redevelopment activities, and would not result in the urbanization of land in a remote location.

The Project Area is urbanized and currently served by an extensive network of electricity, water, sewer, storms drains, communications, roadways, and other infrastructure. The existing infrastructure and systems are adequate to serve the existing and proposed growth as it has been accounted for within the *General Plan.* Thus, the proposed project would not be considered growth inducing in this regard. As discussed in Section 5.12 through Section 5.19, subsequent developments resulting from implementation of the proposed project would be reviewed on a project-by-project basis. Impacts to public services and utilities would be mitigated to a less than significant level.

Currently (2010), the City of San Bernardino has 107,023 employment opportunities throughout the City. According to the *General Plan*, potential development associated with the *General Plan* would produce a total of 338,712 jobs by 2030. This indicates that between 2010 and 2030, total jobs would increase by 216.5 percent. Implementation of the proposed project would result in the addition of 6,200,590 square feet of non-residential development and 16,601 jobs, which would account for approximately 4.9 percent of total employment opportunities under the *General Plan*. The proposed project is intended to stimulate the economic development within the Project Area. New employment opportunities generated from implementation of the proposed project would improve the jobs to housing balance within the Project Area, and the City as a whole. The increase in employment opportunities would help accommodate future population growth. This anticipated growth has been planned for within the *General Plan*.

Given that the proposed project is intended to facilitate development and improvements within the Project Area, it is considered growth inducing. However, these impacts are considered less than significant for the following reasons: 1) the increase in development that would occur within the Project Area due to project implementation would be consistent with the *General Plan,* and 2)the proposed project would provide for greater opportunities for development and redevelopment activities within the Project Area through a variety of means, including incentives and tax increments, which would encourage economic growth.

SECTION 8.0
EFFECTS FOUND NOT TO BE SIGNIFICANT

8.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

The City of San Bernardino Community Redevelopment Agency conducted an Initial Study in November 2009 to determine significant effects of the proposed project. In the course of this evaluation, certain impacts of the proposed project were found to be less than significant due to the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type. The effects determined not to be significant are not required to be included in primary analysis sections of the EIR. In accordance with *CEQA Guidelines* Section 15128, the following section identifies those impacts determined to be less than significant in the Initial Study. A copy of the Initial Study and the explanation for the less than significant conclusions of the following environmental issue areas are included in Appendix A, Initial Study/Notice of Preparation. This section also summarizes which impacts were found to be less than significant in the EIR, both with and without the imposition of mitigation measures.

8.1 INITIAL STUDY CONCLUSIONS

Aesthetics

- Have a substantial adverse effect on a scenic vista as identified in the City's *General Plan*.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

Agricultural Resources

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

Air Quality

- Conflict with or obstruct implementation of the applicable air quality plan (South Coast Air Basin)?
- Create objectionable odors affecting a substantial number of people based on the information contained in the Project Description Form.

Biological Resources

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Geology and Soils

- Modify any unique physical feature based on site survey/evaluation.
- Result in erosion, dust, or unstable soil conditions from excavation, grading, fill, or other construction activities.

Hazardous/Hazardous Materials

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Hydrology and Water Quality

- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.
- Inundation by seiche, tsunami, or mudflow.

Land Use

- Physically divide an established community.
- Conflict with any applicable habitat conservation plan or naturally community conservation plan.
- Be developed within the Hillside Management Overlay District.
- Be developed within Foothill Fire Zones, A, B, or C as identified in the City's *General Plan*.

Mineral Resources

- Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- Result in the loss of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

- Be located in a Mineral Resource Zone as adopted by the State Mining and Geology Board and identified in the City's *General Plan*.

Noise

- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Transportation/Traffic

- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Result in inadequate parking capacity.

Utilities and Service Systems

- Comply with federal, state, and local statutes and regulations related to solid waste.

8.2 EIR CONCLUSIONS

8.2.1 LESS THAN SIGNIFICANT IMPACTS WITHOUT MITIGATION

The EIR concluded that impacts were less than significant for the following impact areas.

Land Use

- The proposed project could conflict with the City of San Bernardino *General Plan*.
- The proposed project could conflict with the City of San Bernardino *Development Code*.
- Development associated with implementation of the proposed project could occur within the Airport Influence Area as adopted by the San Bernardino International Airport Authority.
- Implementation of the proposed project combined with other related cumulative projects could result in cumulatively considerable land use and planning impacts.

Population, Employment, and Housing

- Implementation of the proposed project could increase the residential population by 3,818 persons within the Project Area.

- Implementation of the proposed project could result in the addition of 6,195,718 square feet of non-residential development and 16,591 jobs within the Project Area.
- Implementation of the proposed project could result in the addition of 1,143 dwelling units within the Project Area.
- Implementation of the proposed project could result in the removal of existing housing and displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere.
- Implementation of the proposed project could result in cumulatively considerable impacts related to housing, population, and employment growth.

Air Quality

- Implementation of the proposed project could facilitate development that could not result in an overall increase in carbon monoxide hotspot emissions within the City.

Geology and Seismic Hazards

- Implementation of the proposed project could result in impacts related to soil erosion or the loss of topsoil.

Hazards and Hazardous Materials

- Development associated with implementation of the proposed project could result in an increased risk of upset associated with the routine use, generation, and transport of hazardous materials or emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste, which may potentially pose a health or safety hazard.
- Development associated with implementation of the proposed project could result in an increased hazard to the public or the environment in association with airport facilities.

Hydrology, Drainage, and Water Quality

- Implementation of the proposed project could expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

Fire Protection

- Implementation of the proposed project could result in the need for additional fire protection services.
- Implementation of the proposed project could result in cumulatively considerable impacts to fire protection services.

Water

- Implementation of the proposed project could result in cumulatively considerable impacts to water resources including increased demand for water supplies and infrastructure within the City.

Solid Waste

- Implementation of the proposed project could potentially result in increased solid waste generation in exceedance of landfill capacity.
- Implementation of the proposed project could result in cumulatively considerable impacts related to solid waste disposal services and landfill disposal capacity.

Electricity and Natural Gas

- Implementation of the proposed project could increase the demand for electricity services and facilities.
- Implementation of the proposed project could increase the demand for natural gas services and facilities.
- Implementation of the proposed project combined with other related cumulative projects could result in cumulatively considerable electricity and natural gas impacts.

8.2.2 LESS THAN SIGNIFICANT IMPACTS WITH MITIGATION

The EIR concluded that impacts were less than significant with the imposition of mitigation measures for the following impact areas.

Aesthetics

- Grading and construction activities associated with development as a result of implementing the proposed project could temporarily degrade the existing visual character or quality of the development sites and their surroundings.
- Development associated with implementation of the proposed project could degrade the existing visual character or quality of the development sites and their surroundings.
- Implementation of the proposed project could create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.
- Implementation of the proposed project could result in cumulatively considerable impacts related to aesthetics, light and glare, and shade and shadow.

Air Quality/Greenhouse Gases

- Implementation of the proposed project could facilitate the construction of new land uses that could generate dust and equipment emissions.

- Implementation of the proposed project could introduce future projects that could result in an overall increase in mobile and stationary source emissions within the City, and which may exceed South Coast Air Quality Management District air quality standards.
- Air quality emissions resulting from development associated with implementation of the proposed project could impact regional air quality levels on a cumulatively considerable basis.

Noise

- Future development and improvements associated with implementation of the proposed project could cause temporary construction related noise levels in excess of established standards.
- Construction-related activities resulting from implementation of the proposed project could generate or expose persons or structures to excessive groundborne vibration.
- Future development associated with implementation of the proposed project could increase ambient noise levels from mobile and stationary sources in excess of the established standards.
- As the San Bernardino International Airport is located within the project vicinity, future development associated with implementation of the proposed project could expose people residing or working in the Project Area to excessive noise levels.
- Cumulative short-term and operational noise as a result of implementation of the proposed project could result in cumulatively considerable impacts.

Biological Resources

- Implementation of the proposed project could effect species identifies as a candidate, sensitive, or special status species.
- Implementation of the proposed project could have an adverse effect on riparian habitat or other sensitive natural communities.
- Implementation of the proposed project could have an adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act.
- Implementation of the proposed project could interfere with the movements of native resident or migratory fish, or with wildlife corridors.
- Implementation of the proposed project could result in cumulatively considerable impacts related to biological resources.

Cultural Resources

- Implementation of the proposed project could result in the destruction or alteration of prehistoric archaeological sites.
- Implementation of the proposed project could result in the destruction or alteration of historic archaeological sites.

- Implementation of the proposed project could result in the destruction or alteration of historic buildings and structures.
- Implementation of the proposed project could result in the destruction or alteration of unidentified subsurface archaeological sites.
- Implementation of the proposed project could result in cumulatively considerable impacts related to cultural resources.

Geology and Seismic Hazards

- Implementation of the proposed project could involve earth movement (cut and/or fill).
- Implementation of the proposed project could expose people and structures to potentially substantial adverse effects involving strong seismic ground shaking/be located within an Alquist-Priolo earthquake fault zone.
- Implementation of the proposed project could expose people and structures to potential substantial adverse effects involving seismic-related ground failure (i.e., landslides, subsidence, and liquefaction).
- Development associated with implementation of the proposed project could be located on expansive soils creating potential risk to life or property.
- Implementation of the proposed project could result in cumulatively considerable impacts related to geologic, soils, and seismic hazards.

Hazards and Hazardous Materials

- Accidental release of hazardous materials could result in a risk to the public or environment.
- Development associated with implementation of the proposed project could result in an increased hazard to the public or the environment through the disturbance of existing and/or past railroad uses.
- Development associated with implementation of the proposed project could result in an increased hazard to the public or the environment in association with landfills.
- Development associated with implementation of the proposed project could result in cumulatively considerable hazards and hazardous materials impacts.

Hydrology and Water Quality

- Implementation of the proposed project could violate any water quality standards or waste discharge requirements.
- Implementation of the proposed project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.
- Implementation of the proposed project could create or contribute runoff water which would exceed the capacity of exiting or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, such as from areas of material storage,

vehicle or equipment, maintenance (including washing or detailing), waste handling, hazardous materials handling or storage, delivery areas, loading docks, or other outdoor areas.

- Implementation of the proposed project could otherwise substantially degrade water quality.
- Implementation of the proposed project could place housing within a 100-year flood hazard area as mapped on a federal flood hazard boundary or flood insurance rate map or other flood hazard delineation map (Panel No. 06071C7930F).
- Implementation of the proposed project could place within a 100-year flood hazard area structures which would impede or redirect flood flows.
- Implementation of the proposed project could result in cumulatively considerable hydrology, drainage, and water quality impacts.

Police Protection

- Implementation of the proposed project could result in the need for additional police protection facilities and personnel.
- Implementation of the proposed project could result in cumulatively considerable impacts to police protection facilities and personnel.

School Facilities

- Implementation of the proposed project could result in the need for additional school facilities.
- Implementation of the proposed project could result in cumulatively considerable impacts to school facilities.

Parks and Recreational Facilities

- Implementation of the proposed project could result in significant impacts to the adequate availability of parkland and recreational facilities within the City of San Bernardino.
- Development associated with the proposed project could result in cumulatively considerable impacts to parks and recreational facilities.

Water

- Implementation of the proposed project could result in increased demand for water supplies and infrastructure within the City.

Wastewater

- Implementation of the proposed project could result in increased demand for wastewater services and infrastructure in the City.
- Implementation of the proposed project could result in cumulatively considerable impacts to wastewater systems, including increased demand and infrastructure facilities within the City.

SECTION 9.0
SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED ACTION IS IMPLEMENTED

9.0 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED ACTION IS IMPLEMENTED

CEQA Guidelines Section 15126(b) requires an EIR to "*describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described.*"

Section 5.0 of this EIR provides a description of the potential environmental impacts of the proposed project and recommends *General Plan* goals and policies as well as mitigation measures to reduce impacts to a less than significant level, where possible. After implementation of the recommended goals, policies, and mitigation measures, most of the potentially significant impacts associated with the proposed project would be reduced to less than significant levels. However, the impacts listed below could not be feasibly mitigated and would result in a significant unavoidable impact associated with approval of the proposed project.

AIR QUALITY

- **Construction-Related Emissions** – Due to the magnitude of project-related emissions associated with future development and infrastructure projects facilitated by the proposed project, construction-related emissions are considered significant and unavoidable.

- **Operational Emissions** – During the operational phase, potential development within the Project Area would result in a net increase in regional emissions of ROG, NO_X, SO_2, CO, PM_{10}, and $PM_{2.5}$ from the operation of both stationary and mobile sources. Mitigation measures and *General Plan* policies identified above would reduce the potential air quality impacts to the degree feasible, but emissions are anticipated to remain above SCAQMD significance thresholds. Therefore, operation of the proposed project would have a significant and unavoidable impact.

- **Cumulative Construction-Related Emissions** – The associated Implementation Action requires Best Available Control Measures to be incorporated to reduce construction emissions below daily emissions standards established by the SCAQMD. These Best Available Control Measures include procedures to control emissions of particulate matter, ozone, and NO_X (an ozone precursor). However, even with implementation of the policies and implementation actions, cumulative construction-related emissions would not be reduced to a less than significant level. Thus, significant and unavoidable impacts would occur in this regard.

- **Cumulative Operational Emissions** – Many of the individual projects would be small and generate mobile and stationary emissions that do not exceed the SCAQMD's recommended thresholds of significance. With regard to daily operational emissions and

the cumulative net increase of any criteria pollutant for which the region is nonattainment, this is considered to be a potentially significant cumulative impact, due to nonattainment of O_3 and PM_{10}, and $PM_{2.5}$ standards in the Basin. The contribution of daily operational emissions from the growth associated with the proposed project could be cumulatively considerable. This cumulative impact is considered to be significant and unavoidable.

- **Cumulative GHG Emissions** – When considering the proposed project as a whole, proposed amount of development under the proposed project would be expected to produce a significant amount of GHG emissions. Many of the individual projects would be small and generate nominal amounts of GHGs. However, as global climate change is cumulatively considerable, future project GHG contributions associated with the proposed project could result in a significant cumulative impact. Although the proposed project would be required to adhere to the previously identified *General Plan* policies regarding vehicle emissions reductions and energy and water efficiency, it would be too speculative to quantify GHG emissions and reductions from the proposed project, as project specific details are unknown at this time. Therefore, the contribution of GHG emissions from the growth associated with the proposed project could be cumulatively considerable. This cumulative impact is considered to be significant and unavoidable.

TRAFFIC

- **Project and Cumulative Traffic** – Trips associated with the proposed project and cumulative development within the City would impact levels of service on the area roadway system. These impacts have been determined to be significant and unavoidable, even with compliance with the *General Plan* goals and policies, and the recommended circulation improvements identified in the *General Plan* Circulation Element and *General Plan EIR*. To assist in implementing circulation improvements identified in the *General Plan* Circulation Element, the City established development impact fees for both local and regional circulation improvements. All future developments that occur within the City and the Project Area would be required to pay these fees. Payment of these fees effectively mitigates the impacts associated with development projects in the City. However, since the circulation improvements may not be constructed until some time after the fees are paid, impacts remain significant. In addition, there may be instances where improvements are shared by other jurisdictions (i.e. Caltrans, City of Redlands, County of San Bernardino, etc.), which may affect the ability to construct the proposed improvements at the time the impact occurs. While these impacts are mitigable, it is the timing of when the mitigation would occur that provides the basis for the significant unavoidable impact determination.

SECTION 10.0
SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE INVOLVED IF THE PROPOSED PROJECT WERE IMPLEMENTED

10.0 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE INVOLVED IF THE PROPOSED PROJECT WERE IMPLEMENTED

CEQA Guidelines Section 15126.2(c) requires a discussion of any significant irreversible environmental changes that would be caused by the proposed project. Specifically, Section 15126.2(c) states:

"Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts, and particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified."

The environmental effects of the proposed project are discussed in Section 5.0. The Redevelopment Agency of the City of San Bernardino is proposing various redevelopment plan amendments and the merger of seven of the Agency's redevelopment Project Areas. Implementation of the proposed project would result in the addition of 1,833 dwelling units, 6,122 persons, 6,200,590 square feet of non-residential development, and 16,601 jobs beyond existing conditions. The anticipated growth has been planned for within the *General Plan* and permitted land uses within the Project Area would be those permitted by the *General Plan*. Therefore, the proposed project would incorporate the *General Plan* goals, policies, and land use designations. Implementation of the proposed project would allow for new developments in the City that would entail the commitment of natural resources, energy, land, and human resources. Manpower would also be committed for the development of residential and non-residential uses. Ongoing maintenance and operation of new developments would entail a further commitment of energy resources in the form of petroleum products (diesel fuel and gasoline), natural gas, and electricity. Long-term impacts would also result from an increase in vehicular traffic, and the associated air pollutant and noise emissions. This commitment of resources would be a long-term obligation in view of the fact that, practically speaking, it is impossible to return the land to its original condition once it has been developed. In summary, implementation of the proposed project would involve the following irreversible environmental changes:

- Soil erosion associated with grading and construction activities;
- Alteration of the human environment as a consequence of the development process, which commits land to residential uses, commercial uses (retail/general, office lodging), and industrial uses, and intensifies land uses within the City;
- Increased usage of public services and utilities (including fire protection, police protection, wastewater, solid waste, parks and recreational facilities, schools, natural gas, and electricity) during and after construction of new developments, which would result in temporary and permanent uses of these resources;

- Temporary and permanent commitment of energy and water resources as a result of the construction, long-term operation and maintenance of new developments, which may be considered a permanent investment; and
- Utilization of various new raw materials (such as lumber, sand, and gravel) for construction.

SECTION 11.0
REFERENCES

11.0 REFERENCES

11.1 LEAD AGENCY AND EIR PREPARER

LEAD AGENCY

City of San Bernardino
Economic Development Agency
201 North "E" Street, Suite 301
San Bernardino, CA 92401

Mr. Don Gee, Deputy Director of the Redevelopment Agency
Mr. Jeffrey Smith, AICP, Senior Urban Planner
Mr. Mike Trout, Project Manager

PREPARER OF THE REDEVELOPMENT PLAN

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Mr. Brian Allee, Environmental Analyst
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Mr. Aaron Pfannenstiel, AICP, Environmental Analyst
Mr. Eddie Torres, INCE, Air Quality & Noise Studies Manager
Ms. Kelly Chiene, Air Quality Analyst
Mr. Achilles Malisos, Noise Analyst
Mr. Paul Martin, PE, Traffic Study Manager
Mr. Phillip Masto, Traffic Analyst
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Ms. Linda Bo, Graphic Artist

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Santa Ana, CA 92701

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Tom Dodson & Associates

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San Bernardino, California 92405

11.2 ORGANIZATIONS AND INDIVIDUALS CONTACTED

City of San Bernardino
Police Department
710 North "D" Street
San Bernardino, CA, 92402-1559

Keith Kilmer, Chief of Police
Mark A. Garcia, Assistant Chief of Police
Paul Guillen, Police Communications Manager

City of San Bernardino
Fire Department
200 East 3rd Street
San Bernardino, CA, 92401

Michael J. Conrad, Fire Chief

City of San Bernardino
Parks, Recreation & Community Services Department
1350 South "E" Street
San Bernardino, CA, 92408

Robert Lennox, Deputy Director
Harriet Myers, Executive Assistant to Director

San Bernardino City Unified School District
777 North "F" Street
San Bernardino, CA, 92410

Wael Elatar, Facilities Administrator
Mary E. Watson, Secretary III

San Bernardino Community College District
114 S. Del Rosa Drive
San Bernardino, CA, 92408

Steven Lohr, Ed.D, Planning and Development Director

City of San Bernardino
Public Services Department
300 North "D" Street
San Bernardino, CA, 92418

Deborah Allen, Environmental Projects Manager

City of San Bernardino
Municipal Water Department
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Michael Nevarez, Water Utility Engineer

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SECTION 12.0
MITIGATION MONITORING PROGRAM

12.0 MITIGATION MONITORING AND REPORTING PROGRAM

Sections 1.0 and 5.0 of this EIR identify the mitigation measures that will be implemented to reduce the impacts associated with the San Bernardino Merged Area A – Merger and Amendments project. The *California Environmental Quality Act* (*CEQA*) was amended in 1989 to add Section 21081.6, which requires a public agency to adopt a monitoring and reporting program for assessing and ensuring compliance with any required mitigation measures applied to proposed development. As stated in Section 21081.6 of the *Public Resources Code*,

> *. . . the public agency shall adopt a reporting or monitoring program for the changes to the project which it has adopted, or made a condition of project approval, in order to mitigate or avoid significant effects on the environment.*

Section 21081.6 provides general guidelines for implementing mitigation monitoring programs and indicates that specific reporting and/or monitoring requirements, to be enforced during project implementation, shall be defined prior to final certification of the EIR.

The mitigation monitoring table below lists those mitigation measures that may be included as conditions of approval for the proposed Project. These measures correspond to those outlined in Section 1.0 and discussed in Section 5.0. To ensure that the mitigation measures are properly implemented, a monitoring program has been devised which identifies the timing and responsibility for monitoring each measure. The applicant/developer of specific future projects will have the responsibility for implementing the measures, and the Redevelopment Agency of the City of San Bernardino and the various departments will have the primary responsibility for monitoring and reporting the implementation of the mitigation measures.

SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS PROGRAM ENVIRONMENTAL IMPACT REPORT							
MITIGATION MONITORING AND REPORTING PROGRAM							
Mitigation Measure		Monitoring Phase	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
AESTHETICS							
AES-1	Construction materials and equipment staging areas shall be located away from residential or other sensitive uses and, when feasible, appropriate screening (i.e., temporary fencing with opaque material) shall be used to buffer views of the construction site. Staging locations shall be indicated on Final Development Plans and Grading Plans.	During Pre-Construction/ Construction	City of San Bernardino Community Development Department (Building and Safety Division)	Periodic Site Inspections			
AES-2	All construction-related lighting shall include shielding in order to direct lighting down and away from residential or other sensitive uses and consist of the minimal wattage necessary to provide safety at the construction site. A construction safety lighting plan shall be submitted to the City for review concurrent with Grading Permit application.	Concurrent with Grading Permit Application	City of San Bernardino Community Development Department (Building and Safety Division)	Periodic Site Inspections/Review and Approval of Safety Lighting Plan/Approval of Site Plan			
AES-3	Visual simulations depicting before (existing conditions) and after (with project conditions) representations of the proposed buildings and landscaping shall be required for future development projects, if deemed necessary by the City. The visual simulations are intended to convey an impression of the location, scale, and massing of the buildings to be constructed on a project site and to demonstrate the potential effects of the project. The viewpoint locations for visual simulation shall be determined by the Planning Division.	Prior to Site Plan Approval	City of San Bernardino Community Development Department (Planning Division)	Review and Approval of Visual Simulations			

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Mitigation Measure		Monitoring Phase	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
AES-4	Future development projects shall be designed with lighting installed in locations and orientations that minimize light spillover on adjacent residential or other sensitive uses. All onsite lighting shall utilize directional lighting techniques and low wattage bulbs that direct light downwards and minimize light spillover to adjacent residential or other sensitive uses, without compromising site safety or security. Lighting fixtures shall use shielding, if necessary, to prevent spill lighting on adjacent offsite uses.	Prior to Site Plan Approval	City of San Bernardino Community Development Department (Planning Division)	Review and Approval of Lighting/Approval of Site Plan			
AIR QUALITY							
AQ-1	Prior to the issuance of grading permits, the property owner/developer shall include a note on all grading plans which requires the construction contractor to implement following measures during grading. These measures shall also be discussed at the pregrade conference. • Use low emission mobile construction equipment. • Maintain construction equipment engines by keeping them tuned. • Utilize existing power sources (i.e., power poles) when feasible. • Configure construction parking to minimize traffic interference. • Minimize obstruction of through-traffic lanes. When feasible, construction should be planned so that lane closures on existing streets are kept to a minimum.	Prior to Issuance of Grading Permit	City of San Bernardino Community Development Department (Building and Safety Division)	Periodic Site Inspections			

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					Initials	Date	Remarks
	• Schedule construction operations affecting traffic for off-peak hours to minimize traffic congestion. • Develop a traffic plan to minimize traffic flow interference from construction activities (the plan may include advance public notice of routing, use of public transportation and satellite parking areas with a shuttle service).						
AQ-2	The City shall promote the use of low or zero VOC content architectural coatings for construction and maintenance activities.	Prior to Issuance of Grading Permit	City of San Bernardino Community Development Department (Planning Division)	Periodic Site Inspections			
AQ-3	The City shall reduce vehicle emissions caused by traffic congestion by implementing transportation systems management techniques that include synchronized traffic signals and limiting on-street parking.	Prior to Site Plan Approval	City of San Bernardino Public Works Department (Traffic)	Approval of Site Plan			
AQ-4	The City shall consider the feasibility of diverting commercial truck traffic to off-peak periods to alleviate non-recurrent congestion as a means to improve roadway efficiency.	Prior to Site Plan Approval	City of San Bernardino Public Works Department (Traffic)	Approval of Site Plan			
AQ-5	The City shall promote the use of fuel efficient vehicles such as fuel hybrids when purchasing vehicles for the City's vehicle fleet.	Prior to Site Plan Approval	Redevelopment Agency of City of San Bernardino	Approval of Site Plan			

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					Initials	Date	Remarks
NOISE							
NOI-1	The following measures shall be implemented when construction is to be conducted within 500 feet of any residential structures or has the potential to disrupt classroom activities or religious functions. • All construction equipment shall be equipped with mufflers and sound control devices (e.g., intake silencers and noise shrouds) no less effective than those provided on the original equipment and no equipment shall have an unmuffled exhaust. • The City shall require that the contractor maintain and tune-up all construction equipment to minimize noise emissions. • Stationary equipment shall be placed so as to maintain the greatest possible distance to the sensitive use structures. • All equipment servicing shall be performed so as to maintain the greatest possible distance to the sensitive use structures. • The construction contractor shall provide an on-site name and telephone number of a contact person. In the event that construction noise is intrusive to an educational process, the construction liaison will revise the construction schedule to preserve the learning environment.	During Grading and Construction	City of San Bernardino Community Development Department (Planning Division/Building and Safety Division)	Coordination with Redevelopment Agency of City of San Bernardino			

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MITIGATION MONITORING AND REPORTING PROGRAM							
Mitigation Measure		Monitoring Phase	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
	• Trucks shall utilize a route that is least disruptive to sensitive receptors, preferably major roadways, during any necessary off-site import/export of fill material during construction.						
NOI-2	Project applicants shall require by contract specifications that construction staging areas along with the operation of earthmoving equipment within the City would be located as far away from vibration and noise sensitive sites as possible. Should construction activities take place within 25 feet of an occupied structure, a project specific vibration impact analysis shall be conducted. Contract specifications shall be included in the proposed project construction documents, which shall be reviewed by the City prior to issuance of a grading permit.	Prior to Issuance of Grading Permit/During Construction	City of San Bernardino Community Development Department (Building and Safety Division)	Coordination with Redevelopment Agency of City of San Bernardino			
NOI-3	Prior to the issuance of building permits for any project that involves a noise sensitive use within the 65 dBA CNEL contour along major roadways or freeway, railroads, or the San Bernardino International Airport, the project property owner/developers shall submit a final acoustical report prepared to the satisfaction of the Planning Director. The report shall show that the development will be sound-attenuated against present and projected noise levels, including roadway, aircraft, helicopter and railroad, to meet City interior and exterior noise standards.	Prior to Issuance of Grading Permit/During Construction	City of San Bernardino Community Development Department (Planning Division/Building and Safety Division)	Review and Approval of Acoustical Report			

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Mitigation Measure		Monitoring Phase	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
BIOLOGICAL RESOURCES							
BIO-1	A qualified biologist shall conduct a pre-construction nesting bird survey no more than three days prior to the commencement of ground-disturbing activities on the site. In the event breeding birds and their active nests are discovered on the project site during construction, impacts to nesting locations shall be minimized by the construction contractor pursuant to the California Fish and Game Code and the Federal Migratory Bird Treaty Act. Where an active bird nest is located by a qualified biologist, a 300-foot buffer (or 500-foot buffer for raptors and special-status bird species) shall be established around it until the qualified biologist deems the nest inactive and there is no evidence of a second attempt to use the nest. The buffer area shall be delineated with orange construction fencing, and a qualified biologist shall verify the installation. Most birds breed between the months of February and September; therefore, if construction occurs outside of this time frame, there is a lower probability that breeding birds would be impacted by construction-related activities.	Prior to Issuance of Grading Permit	City of San Bernardino Community Development Department (Planning Division)	Review and Approval of Pre-construction Nesting Bird Survey/Issuance of Permits/Periodic Site Inspections			
BIO-2	A qualified biologist with a CDFG Scientific Collection permit and Memorandum of Understanding shall conduct a series of 30-day preconstruction surveys for the burrowing owl and San Bernardino kangaroo rat. The project applicant shall consult with the CDFG regarding measures for reducing or avoiding impacts to these species. The project applicant shall, if	Prior to Issuance of Grading Permit	City of San Bernardino Community Development Department (Planning	Review and Approval of 30-day Preconstruction Surveys/Issuance of Permits/Periodic Site Inspections			

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Mitigation Measure		Monitoring Phase	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
	required by the CDFG, prepare a relocation plan, which shall be approved by the CDFG. If the aforementioned species are observed prior to construction, CDFG may require that the species be relocated by a qualified biologist to an approved site with suitable habitat present. Survey and relocation methods shall be approved by the CDFG prior to commencement of grading. Future development shall comply with all applicable requirements of the CDFG.		Division)/CDFG				
BIO-3	As applicable, future development shall be subject to the regulations set forth by regulatory agencies as part of the jurisdictional permitting process. The ACOE and CDFG shall require project applicants to explore alternatives to avoid or reduce impacts and shall also require mitigation for all unavoidable impacts. The ACOE has a "no net loss" policy that requires that any unavoidable impacts to stream values and functions be replaced. In addition, the RWQCB shall add restrictions to control runoff from the site, require on the site treatment of runoff to improve water quality, and impose Best Management Practices on the construction. All of the features of the project that shall address water quality issues shall be explained within the Water Quality Management Plan and Stormwater Pollution Prevention Plan.	Prior to Issuance of Grading Permit	City of San Bernardino Community Development Department (Planning Division)/ ACOE/CDFG/ RWQCB	Coordination with the Redevelopment Agency of City of San Bernardino/ACOE/CDFG/RWQCB/Issuance of Permits			
CULTURAL RESOURCES							
CR-1	Complete Archaeological Surveys of Undeveloped Properties. Prior to initiating any ground disturbing activities on undeveloped (not covered by buildings, pavement, or landscaping) properties, parcels, or city streets subject to	Prior to Issuance of Grading Permit	City of San Bernardino Community Development	Review and Approval of Archaeological Surveys of Undeveloped			

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Mitigation Measure		Monitoring Phase	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
	redevelopment activities, an archaeological records search and a field survey using transects no more than 15 meters apart shall be completed. The results shall be provided to the City Redevelopment Agency in a technical report.		Department (Planning Division)	Properties Technical Report/Issuance of Permits/Periodic Site Inspections			
CR-2	Complete Archaeological Test Program and Data Recovery. If a potentially eligible archaeological site is identified as a result of the survey, an archaeological test program shall be completed in order to provide information necessary to evaluate the site for eligibility for the CRHR. The results of the test program and the evaluation shall be provided to the City Redevelopment Agency in a technical report. If evaluated as eligible and the City determines that the site is eligible, an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, shall be completed for the portion of the site that will be impacted, unless project plans can be changed to avoid impacts to the site.	Prior to Issuance of Grading Permit	City of San Bernardino Community Development Department (Planning Division)	Review and Approval of Archaeological Test Program and Data Recovery Technical Report if necessary/Issuance of Permits/Periodic Site Inspections			
CR-3	Carry Out Historical Research And Records Search. Prior to initiating any ground disturbing activities on properties, parcels, or city streets subject to redevelopment activities in the Central City North, Central City East, Meadowbrook/Central City, and Central City South Project Areas, a records search shall be obtained from the San Bernardino Archaeological Information Center and property-specific historical research shall be conducted to determine the potential for subsurface historical archaeological material. The historical research shall include, but not be limited to, use	Prior to Issuance of Grading Permit	City of San Bernardino Community Development Department (Planning Division)	Review and Approval of Historical Research and Records Search Technical Report/Issuance of Permits/Periodic Site Inspections			

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Mitigation Measure		Monitoring Phase	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
	of historical maps, Sanborn's Fire Insurance Maps, and County Assessor's records. The results shall be provided to the Redevelopment Agency of the City of San Bernardino in a technical report.						
CR-4	Complete Archaeological Test Program and Data Recovery. If the results of the archaeological research indicate that a potentially eligible historical archaeological site may be present subsurface, an archaeological test program shall be completed in order to provide information necessary to evaluate the site for eligibility for the CRHR. If evaluated as eligible and the City determines that the site is eligible, an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, shall be completed for the portion of the site that will be impacted, unless project plans can be changed to avoid impacts to the site. If an archaeological test program is not feasible because the property is covered by buildings and structures, archaeological monitoring shall be carried out during ground disturbing activities subsequent to building demolition.	Prior to Issuance of Grading Permit	City of San Bernardino Community Development Department (Planning Division)	Review and Approval of Archaeological Test Program and Data Recovery Technical Report if necessary/Issuance of Permits/Periodic Site Inspections			
CR-5	Identify Historical Buildings More than 50 Years Old. Prior to demolition or alteration of buildings or structures more than 50 years old in the Central City North, Central City East, Meadowbrook/Central City, Central City South, and South Valle Project Areas, a building inventory shall be completed by an architectural historian to determine which buildings are more than 50 years old. The age of the buildings may be	Prior to Demolition or Alteration of Buildings or Structures more than 50 years old	City of San Bernardino Community Development Department (Planning Division)	Review and Approval of Building Inventory and provided to the Agency and City Planning Division to be incorporated into the City's Historical			

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Mitigation Measure		Monitoring Phase	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
	determined through historical research or by assessing architectural characteristics. Once this inventory has been completed, if a significant resource has been identified, the results of the survey shall be provided to the Agency and City Planning Division to be incorporated into the City's Historical Resources Reconnaissance Survey.			Resources Reconnaissance Survey if needed./Issuance of Permits/Periodic Site Inspections			
CR-6	Evaluate Historical Buildings More than 50 Years Old. Properties that contain buildings or structures more than 50 years old subject to demolition or alteration shall be evaluated for CRHR eligibility by an architectural historian. The evaluation shall be conducted by means of property-specific historical research and assessment of architectural characteristics. The results of the evaluation shall be provided to the Agency and City Planning Division in a technical report and the results shall be incorporated into the City's Historical Resources Reconnaissance Survey. If evaluated as eligible and the City determines that the building or structure is eligible, mitigation measures formulated by the architectural historian to reduce impacts shall be implemented. For buildings to be altered or remodeled, the Secretary of the Interior's Standards for Rehabilitation shall be employed in project design. For buildings and structures to be demolished, Historic American Building Survey/Historic American Engineering Record (HABS/HAER) standards shall be used in documenting the architectural or engineering characteristics of the building or structure.	Prior to Demolition or Alteration of Buildings or Structures more than 50 years old	City of San Bernardino Community Development Department (Planning Division)	Issuance of Permits/Periodic Site Inspections			

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Mitigation Measure		Monitoring Phase	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
CR-7	Conduct Construction Monitoring. All ground-disturbing activities that result from redevelopment actions in the Project Area shall be monitored. Archaeological resources discovered during monitoring shall be evaluated to determine if they are eligible for the CRHR. Appropriate mitigation measures (data recovery or preservation) shall be developed and implemented for eligible resources that will be impacted.	Prior to Issuance of Grading Permit/During Grading and Construction	City of San Bernardino Community Development Department (Planning Division)	Issuance of Permits/Periodic Site Inspections			
GEOLOGY AND SEISMIC HAZARDS							
GEO-1	Prior to issuance of a Grading Permit for each development project, a geotechnical engineer shall prepare an area-specific Geologic Report, which shall be submitted to the Community Development (Building and Safety) for approval. The Geologic Report shall specify the measures necessary to mitigate impacts related to liquefaction, expansion, and other geologic and seismic hazards, if any. All recommendations in the Geologic Report shall be implemented during area preparation, grading, and construction.	Prior to Issuance of Grading Permit/During Grading and Construction	City of San Bernardino Community Development Department (Building and Safety Division)	Review and Approval of Geologic Study			
GEO-2	Prior to issuance of any Grading Permit, applicants of development projects shall comply with each of the recommendations detailed in the Geotechnical Report, and other such measure(s) as the City deems necessary to adequately mitigate potential seismic and geotechnical hazards.	Prior to the Issuance of Grading Permit/During Construction	City of San Bernardino Community Development Department (Building and Safety Division)	Review and Approval of Geologic Study/Issuance of Grading Permit/Site Inspections			

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Mitigation Measure		Monitoring Phase	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
GEO-3	All grading, landform modifications, and construction shall be in conformance with Title 15, Division 1 of the San Bernardino Municipal Code. Typical standard minimum guidelines regarding regulations to control excavations, grading, earthwork construction, including fills and embankments and provisions for approval of plans and inspection of grading construction are set from the latest version of the California Building Code. Compliance with these standards shall be evident on grading and structural plans. This measure will be monitored by the City Building and Safety Division through periodic site inspections.	Prior to the Issuance of Grading Permit/During Construction	City of San Bernardino Community Development Department (Building and Safety Division)	Site Inspections			
HAZARDS AND HAZARDOUS MATERIALS							
HAZ-1	A formal Phase I Environmental Site Assessment (ESA) shall be prepared on a project-by-project basis in accordance with ASTM Standard 1527-05 or the Standards and Practices for All Appropriate Inquiry (AAI), prior to any land acquisition and/or construction activities. The Phase I ESA would identify specific Recognized Environmental Conditions (RECs), which may require further sampling/remedial activities by a qualified hazardous materials consultant with Phase II/Site Characterization experience prior to land acquisition, demolition, and/or construction.	Prior to Land Acquisition/During Construction	City of San Bernardino Community Development Department (Building and Safety Division)	Review and Approval of Phase 1 ESA/Completion of Further Sampling/Remedial Activities, if Necessary/Issuance of Permits			
HAZ-2	Prior to demolition and/or rehabilitation activities, an asbestos survey shall be conducted by an Asbestos Hazard Emergency Response Act (AHERA) and Cal OSHA certified building inspector to determine the presence or absence of asbestos containing-materials (ACMs). If ACMs are located, abatement	Prior to Demolition and/or Rehabilitation	City of San Bernardino Community Development Department	Review and Approval of Asbestos Survey/Abatement of Asbestos, if Necessary/Issuance			

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MITIGATION MONITORING AND REPORTING PROGRAM							
Mitigation Measure		Monitoring Phase	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
	of asbestos shall be completed prior to any activities that would disturb ACMs or create an airborne asbestos hazard. Asbestos removal shall be performed by a State certified asbestos containment contractor in accordance with the South Coast Air Quality Management District (SCAQMD) Rule 1403.		(Building and Safety Division)	of Permits			
HAZ-3	If paint is separated from building materials (chemically or physically) during demolition of the structures, the paint waste shall be evaluated independently from the building material by a qualified environmental professional. If lead-based paint is found, abatement shall be completed by a qualified lead specialist prior to any activities that would create lead dust or fume hazard. Lead-based paint removal and disposal shall be performed in accordance with California Code of Regulation Title 8, Section 1532.1, which specifies exposure limits, exposure monitoring and respiratory protection, and mandates good worker practices by workers exposed to lead. Contractors performing lead-based paint removal shall provide evidence of abatement activities to the City Engineer.	During Demolition and/or Rehabilitation Activities	City of San Bernardino Community Development Department (Building and Safety Division)	Evaluation of Paint Waste/Abatement of Lead Based Pain, if Necessary			
HAZ-4	If unknown wastes or suspect materials are discovered during construction by the contractor that are believed to involve hazardous waste or materials, the contractor shall comply with the following: • Immediately cease work in the vicinity of the suspected contaminant, and remove workers and the public from the area; • Notify the City's Engineer; • Secure the area as directed by the Project Engineer;	During Demolition, Rehabilitation and/or Construction Activities	City of San Bernardino Community Development Department (Building and Safety Division)	Site Inspection/ Notification of the Implementing Agency's Hazardous Waste/Materials			

SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS PROGRAM ENVIRONMENTAL IMPACT REPORT							
MITIGATION MONITORING AND REPORTING PROGRAM							
Mitigation Measure		Monitoring Phase	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
	and • Notify the implementing agency's Hazardous Waste/Materials Coordinator. The Hazardous Waste/Materials Coordinator shall advise the responsible party of further actions that shall be taken, if required.						
HYDROLOGY, DRAINAGE, AND WATER QUALITY							
HYD-1	Prior to the issuance of any grading or building permit, all qualifying land development/redevelopment projects, shall submit and have approved a Storm Water Quality Management Plan (SWQMP) to the City Engineer. The SWQMP shall identify all Best Management Practices (BMPs) that will be incorporated into the project to control storm water and non-storm water pollutants during and after construction and shall be revised as necessary during the life of the project. The SWQMP submittal applies to construction projects covered by the NPDES General Construction Permit as well as construction projects less than one acre in size. Also, a Stormwater Pollution Prevention Plan (SWPPP) shall be reviewed and approved by the City Engineer for water quality construction activities on-site. All recommendations in the Plan shall be implemented during post construction/operation phase. The project applicant shall comply with each of the recommendations detailed in the Plan, and other such measure(s) as the City deems necessary to mitigate potential water quality impacts.	Prior to Issuance of Grading or Building Permits/During Construction/Periodic Site Inspections	City of San Bernardino Public Works Department	Proof of Filing of Notice of Intent/Review and Approval of Stormwater Pollution Prevention Plan/Issuance of Grading or Building Permits/Site Inspections			

SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS PROGRAM ENVIRONMENTAL IMPACT REPORT							
MITIGATION MONITORING AND REPORTING PROGRAM							
Mitigation Measure		Monitoring Phase	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
HYD-2	Any developer/owner engaging in construction activities which disturb one acre or more of land shall apply for coverage under the General Storm Water Permit for Construction Activity with the State Water Resources Control Board (SWRCB). Any developer/owner engaging in construction activities which disturb less than one acre, but are part of a larger common plan of development or sale that is greater than one acre, must also apply for coverage under the General Storm Water Permit for Construction Activity with the State Water Resources Control Board (SWRCB). “Construction activity" includes, but is not limited to: clearing, grading, demolition, excavation, construction of new structures, and reconstruction of existing facilities involving removal and replacement that results in soil disturbance. The owner of the land where the construction activity is occurring is responsible for obtaining coverage under the permit. Owners may obtain coverage under the General Permit by completing a “Notice of Intent” form (NOI) and mailing the form along with a vicinity map and the appropriate fee to the office of the California State Water Resources Control Board. The NOI form and checklist of items to submit to the state is available from the State Water Resources Control Board in Sacramento, California or from the City’s Development Services Department. In addition, the owner shall also prepare a Storm Water Pollution Prevention Plan (SWPPP) in accordance with State requirements.	During Construction/ Prior to Obtaining any City-issued Grading and/or Construction Permits	City of San Bernardino Public Works Department	Evidence of Compliance with the General Construction Permit by Providing a Copy of the Waste Discharger’s Identification Number (WDID) to the City’s Development Services Department			

SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS PROGRAM ENVIRONMENTAL IMPACT REPORT							
MITIGATION MONITORING AND REPORTING PROGRAM							
Mitigation Measure		Monitoring Phase	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
	Prior to obtaining any City-issued grading and/or construction permits the developer/owner shall provide evidence of compliance with the General Construction Permit by providing a copy of the Waste Discharger's Identification Number (WDID) to the City's Community Development Department.						
HYD-3	Prior to approval of project grading or construction plans, the project owner/developer(s) shall be required to coordinate with the City's Public Works Department to determine requirements necessary to mitigate impacts to drainage improvements required to accommodate storage volumes and flood protection for existing and future runoff. Proposed projects shall implement mitigation measures, if required, to the satisfaction of the City Engineer and Public Works Department.	Prior to Approval of Grading or Construction Plans	City of San Bernardino Public Works Department	Coordination with City of San Bernardino Redevelopment Agency/City Public Works Department/City Engineer/Approval of Project Tract Maps			
POLICE PROTECTION							
PS-1	All development projects within the Project Area shall be evaluated and required to mitigate project-related impacts to police services. Individual development projects shall pay any fees required by a Developer Fee Program, if established, by the City of San Bernardino and/or the Police Department.	Prior to Issuance of Building Permit	City of San Bernardino Community Development Department (Planning Division/Police Department)	Payment of Fee/Issuance of Building Permit			

SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS PROGRAM ENVIRONMENTAL IMPACT REPORT							
MITIGATION MONITORING AND REPORTING PROGRAM							
Mitigation Measure		Monitoring Phase	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
SCHOOL FACILITIES							
SCH-1	Prior to the issuance of certificate of occupancy, individual project applicants shall submit evidence to the City of San Bernardino that legally required school-related Development Fees have been paid per the current mitigation established by the applicable school district.	Prior to Issuance of Certificate of Occupancy	City of San Bernardino Community Development Department (Building and Safety Division)	Proof of Fee Payment to Applicable School District/Issuance of Certificate of Occupancy			
PARKS AND RECREATIONAL FACILITIES							
PR-1	Prior to the issuance of a grading permit, the Parks, Recreation & Community Services Department shall review development site plans to ensure that development does not disrupt operations at parks and recreational facilities in the Project Area, or access to pedestrian sidewalks or public transportation routes. Any recommendations by the Parks, Recreation & Community Services Department shall be implemented during site preparation, grading, construction, and operations.	Prior to Issuance of Grading Permit/During Site Preparation, Grading, Construction, and Operations	City of San Bernardino Parks, Recreation and Community Services Department	Review and Approval of Site Plans			
WATER							
WAT-1	Prior to the issuance of a building permit for any future development project, the project applicant shall submit a hydraulic analysis to the San Bernardino Municipal Water Department to determine if water infrastructure upgrades (i.e., pipeline diameter increases for fire flow) are necessary. If the hydraulic analysis determines that upgrades are necessary, the project applicant shall be responsible for their fair-share of the improvements.	Prior to Issuance of a Building Permit	City of San Bernardino Municipal Water Department	Review and Approval of Hydraulic Analysis			

SAN BERNARDINO MERGED AREA A – MERGER AND AMENDMENTS PROGRAM ENVIRONMENTAL IMPACT REPORT							
MITIGATION MONITORING AND REPORTING PROGRAM							
Mitigation Measure		Monitoring Phase	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
WASTEWATER							
WW-1	Prior to issuance of a wastewater permit for any future development project, the project applicant shall pay applicable connection and/or user fees to the City.	Prior to Issuance of Wastewater Permit	City of San Bernardino Water Department	Proof of Fee Payment to County Sanitation Districts of San Bernardino/Issuance of Wastewater Permit			
WW-2	Prior to issuance of a building permit for any future development project, the project applicant shall prepare an engineering study to determine the adequacy of the sewer systems and submit the engineering study to the City for review and approval.	Prior to Issuance of a Building Permit	City of San Bernardino Public Works Department (Traffic)	Review/Approval of Engineering Study/Issuance of Building Permits			
WW-3	Prior to issuance of a building permit for any future development project, the project applicant shall provide evidence that the City and the City of San Bernardino Municipal Water Department has sufficient wastewater transmission and treatment plant capacity to accept sewage flows from buildings for which building permits are being requested.	Prior to Issuance of a Building Permit	City of San Bernardino Public Works Department (Engineering)	Proof of Sufficient Wastewater Transmission and Treatment Plant Capacity from the County Sanitation District of San Bernardino			

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SECTION 13.0
COMMENTS AND RESPONSES

13.0 COMMENTS AND RESPONSES

13.1 CEQA REQUIREMENTS

Before approving a project, the *California Environmental Quality Act* (*CEQA*) requires the Lead Agency to prepare and certify a Final Environmental Impact Report (EIR).

In accordance with *CEQA Guidelines* Sections 15120 through 15132 and Section 15161, the City of San Bernardino Redevelopment Agency has prepared a Program EIR for the San Bernardino Merged Area A Merger and Amendments (SCH #2009111089). The Response to Comments section, combined with the Draft EIR and Mitigation Monitoring Program, comprise the Final EIR.

The following is an excerpt from the *CEQA Guidelines*, Section 15132, Contents of Final Environmental Impact Report:

The Final EIR shall consist of:

(a) The Draft EIR or a version of the draft.

(b) Comments and recommendations received on the Draft EIR either verbatim or in summary.

(c) A list of persons, organizations, and public agencies commenting on the Draft EIR.

(d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process.

(e) Any other information added by the Lead Agency.

This Comments and Responses section includes all of the above-required components and shall be attached to the Final EIR. As noted above, the Final EIR will be a revised document that incorporates all of the changes made to the Draft EIR and the Revised Draft EIR following the 45-day public review period.

13.2 PUBLIC REVIEW PROCESS – DRAFT EIR

The Draft EIR was circulated for review and comment to the public, agencies, and organizations. The Draft EIR was also circulated to State agencies for review through the State Clearinghouse, Office of Planning and Research. A notice of availability was placed in the *San Bernardino County Sun Newspaper,* on June 2, 2010. The 45-day public review period ran from June 2, 2010 to July 16, 2010. Comments received in writing during the 45-day public review period from the public and local and State agencies on the Draft EIR have been incorporated into this section.

13.3 FINAL EIR

The Final EIR allows the public and Lead Agency an opportunity to review revisions to the Draft EIR, the responses to comments, and other components of the EIR, such as the Mitigation

Monitoring Program, prior to approval of the Project. The Final EIR serves as the environmental document to support a decision on the proposed Project.

After completing the Final EIR, and before approving the Project, the Lead Agency must make the following three certifications as required by *CEQA Guidelines* Section 15090:

> *That the Final EIR has been completed in compliance with CEQA;*
>
> *That the Final EIR was presented to the decision-making body of the Lead Agency, and that the decision-making body reviewed and considered the information in the Final EIR prior to approving the Project; and*
>
> *That the Final EIR reflects the Lead Agency's independent judgment and analysis.*

Additionally, pursuant to *CEQA Guidelines* Section 15093(b), when a Lead Agency approves a project that would result in significant unavoidable impacts that are disclosed in the Final EIR, the Lead Agency must submit in writing its reasons for supporting the approved action. This Statement of Overriding Considerations is supported by substantial information in the record, which includes the Final EIR. Since the proposed Project would result in significant, unavoidable impacts as to one category of review, the Lead Agency would be required to adopt a Statement of Overriding Considerations if it approves the proposed Project.

These certifications, the Findings of Fact, and the Statement of Overriding Considerations are included in a separate Findings document. Both the Final EIR and the Findings will be submitted to the Lead Agency for consideration of the proposed Project.

13.4 ORGANIZATION OF COMMENTS AND RESPONSES

This section is organized in the following manner:

- Written Comment Letters and Responses
- Errata for Final EIR

13.5 WRITTEN COMMENT LETTERS AND RESPONSES

All written correspondence from those agencies or individuals commenting on the Draft EIR is reproduced on the following pages. The individual comments on each letter have been consecutively numbered for ease of reference. Following each comment letter are responses to each numbered comment. A response is provided for each comment raising substantive environmental issues. Added or modified text is underlined (example), while deleted text will have a strike out (~~example~~) through the text, and is included in a box, as the example below shows.

~~"Text from EIR"~~ Text from EIR

COMMENT LETTERS

A total of four written comment letters were received during the 45-day public review period.

A. Andrew Machen, Planning Commissioner, dated June 15, 2010.
B. City of San Bernardino Municipal Water Department, dated June 16, 2010.
C. Omnitrans, dated June 30, 2010.
D. Department of Public Works, County of San Bernardino, dated July 12, 2010.
E. State of California, Governor's Office of Planning and Research, State Clearinghouse and Planning Unit, dated July 19, 2010.

COMMENT LETTER A

MEMORANDUM

DATE: June 15, 2010

FROM: Andrew Machen, P.E.
Planning Commissioner, First Ward
174 E. 3rd Street
San Bernardino, CA 92410
909-379-5744
Andy.Machen@dot.ca.gov

TO: Jeff Smith, Senior Urban Planner
City of San Bernardino
201 North "E" Street, Suite 301
San Bernardino, CA 92418

SUBJECT: Comments on Draft EIR for San Bernardino Merged Area A,
June 2010, RBF

Executive Summary, Page 1-16, Carbon Monoxide Hotspots

Impact

"Implementation of the proposed project could facilitate development that could **not** result in an overall increase in carbon monoxide hotspot emissions within the City." A1

Question: Can this determination be made in the absence of information on specific future development within Merged Area A?

Executive Summary, Page 1-26, Geology and Seismic Hazards

Impact

"Implementation of the proposed project could involve earth movement (cut and/or fill)."

Suggestions:

Under **Mitigation Measures;**

1. In GEO-1, Strike the phrase, "…*a registered geologist or soils engineer*…" and replace with **"geotechnical engineer"**. A2
2. Replace all occurrences of the term *"Geologic Study*" with **"Geotechnical Report"** in GEO-1 and GEO-2. A3

3. In GEO-3, replace the phrase, *"All grading, landform modifications, and construction shall be in conformance with state-of-the practice design and construction parameters",* with the phrase, "**All grading, landform modifications, and construction shall be in conformance with Title 15, Division 1 of the San Bernardino Municipal Code."** A4

Project Description, Exhibit 3-2

Suggestion: Label the Tri-City Area lying west of Del Rosa Drive as **"Tri-City I",** and the Tri-City Area lying east of Waterman, west of Tippecanoe , and north of the I-10 freeway as **"Tri-City II".** A5

Project Description, Page 3-5

Suggestion: Break down the total area of 378 acres into separate areas for Tri-City Subarea I and II. A6

Project Description, Page 3-12, Table 3-2

Suggestion: Show separate table entries for Tri-City Subareas I and II. A7

Project Description, Page 3-22, Table 3-5

Question: Should the phrase, "Arrowhead Credit Union has acquired undeveloped and dilapidated properties the **west** be revised to read **east** ? A8

Water, Page 5.16-4, Water Demand

The sentence which reads, *"The total demand was approximately 61,182,330 gallons per person per day or 22,331,550,450 gallons per year (68,533 acre-feet per year)"* appears to be incorrect. A9

A. RESPONSES TO COMMENTS FROM ANDREW MACHEN, PLANNING COMMISSIONER, DATED JUNE 15, 2010.

A1. Comment acknowledged. As discussed in Section 2.0, Introduction and Purpose, of the Draft EIR, a Program EIR was prepared for the merger and amendment of seven Project Areas. Consistent with *CEQA Guidelines* Section 15168, the Program EIR has characterized the overall program of the merger and amendment as the project. Section 3.0, Project Description, describes the various components of the proposed project and identifies the redevelopment potential associated with the proposed project (refer to Draft EIR *Table 3-4)*. Also consistent with *CEQA Guidelines* Section 15168, when future development projects are proposed, the Redevelopment Agency would be required to examine the individual activities within the program to determine whether their effects were fully analyzed in the Program EIR. Thus, at the programmatic stage of air quality analysis for the proposed project, intersection capacity/queuing analyses are not performed, as no specific development is proposed and the future associated traffic numbers are unknown. Furthermore, per Section 5.5, Air Quality, as the CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection, it can be reasonably inferred that CO hotspots would not be experienced at any locations within the City of San Bernardino due to the volume of traffic that would occur as a result of future development within the Project Area. Therefore, no revisions to the Draft EIR are necessary.

A2. The commentator has suggested revising wording for Mitigation Measure GEO-1. The Redevelopment Agency has no concerns with the proposed revision as the intent of the mitigation measure remains the same; thus, the revision will be made in the Final EIR. Mitigation Measure GEO-1 on pages 1-26 and 5-9.24 of the Draft EIR will be revised as follows in the Final EIR:

> GEO-1 Prior to issuance of a Grading Permit for each development project, ~~a registered geologist or soils engineer~~ geotechnical engineer shall prepare an area-specific Geologic Study, which shall be submitted to the Community Development/Redevelopment Department (Building and Safety) for approval. The Geologic Study shall specify the measures necessary to mitigate impacts related to liquefaction, expansion, and other geologic and seismic hazards, if any. All recommendations in the Geologic Study shall be implemented during area preparation, grading, and construction.

A3. The commentator has suggested revising wording for Mitigation Measures GEO-1 and GEO-2. The Redevelopment Agency has no concerns with the proposed revision as the intent of the mitigation measures remain the same; thus, the revisions will be made in the Final EIR. Mitigation Measures GEO-1 and GEO 2 on pages 1-26, 1-27, and 5-9.24 of the Draft EIR will be revised as follows in the Final EIR:

GEO-1 Prior to issuance of a Grading Permit for each development project, ~~a registered geologist or soils engineer~~ geotechnical engineer shall prepare an area-specific ~~Geologic Study~~ Geotechnical Report, which shall be submitted to the Community Development/Redevelopment Department (Building and Safety) for approval. The ~~Geologic Study~~ Geotechnical Report shall specify the measures necessary to mitigate impacts related to liquefaction, expansion, and other geologic and seismic hazards, if any. All recommendations in the ~~Geologic Study~~ Geotechnical Report shall be implemented during area preparation, grading, and construction.

GEO-2 Prior to issuance of any Grading Permit, applicants of development projects shall comply with each of the recommendations detailed in the ~~Geotechnical Study~~ Geotechnical Report, and other such measure(s) as the City deems necessary to adequately mitigate potential seismic and geotechnical hazards.

A4. The commentator has suggested revising wording for Mitigation Measures GEO-3. The Redevelopment Agency has no concerns with the proposed revision as the intent of the mitigation measures remain the same; thus, the revisions will be made in the Final EIR. Mitigation Measure GEO-3 on pages 1-27 and 5-9.24 of the Draft EIR will be revised as follows in the Final EIR:

GEO-3 ~~All grading, landform modifications, and construction shall be in conformance with state-of-the-practice design and construction parameters~~. All grading, landform modifications, and construction shall be in conformance with Title 15, Division 1 of the San Bernardino Municipal Code. Typical standard minimum guidelines regarding regulations to control excavations, grading, earthwork construction, including fills and embankments and provisions for approval of plans and inspection of grading construction are set from the latest version of the California Building Code. Compliance with these standards shall be evident on grading and structural plans. This measure will be monitored by the City Building and Safety Department through periodic site inspections.

A5. Comment acknowledged. The Tri-City Project Area will not be relabeled as the Redevelopment Agency wants to keep the references to the Tri-City as they are commonly used and to remain consistent throughout the Draft EIR. Therefore, no revisions to the Draft EIR are necessary.

A6. Refer to Response A5.

A7. Refer to Response A5.

A8. Comment acknowledged. The Arrowhead Credit Union has acquired undeveloped and dilapidated properties to the west. Therefore, no revisions to the Draft EIR are necessary.

A9. Comment acknowledged. Currently the annual water demand is approximately 330 gallons of water per person per day or 120,450 gallons per person per year. The Citywide total demand is approximately 61,182,330 gallons per day (not per person) or 22,331,550,450 gallons per year (68,533 acre-feet per year). This information was obtained from the *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005. The Water Demand section on Page 5.16-4 will be revised as follows in the Final EIR:

Water Demand

In year 2005, the City's water demand was approximately 330 gallons of water per person per day (120,450 gallons per person per year). The Citywide total demand was approximately 61,182,330 gallons ~~per person~~ per day or 22,331,550,450 gallons per year (68,533 acre-feet per year).

COMMENT LETTER B

CITY OF SAN BERNARDINO
MUNICIPAL WATER DEPARTMENT
INTEROFFICE MEMORANDUM

2010 JUN 2[illegible] PM 12 17

TO: Mr. Jeffrey Smith, AICP, Senior Urban Planner
Redevelopment Agency

FROM: Mike Nevarez, Water Utility Engineer
San Bernardino Municipal Water Department

SUBJECT: **NOTICE OF AVAILABILITY OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT FOR SAN BERNARDINO MERGED AREA A - MERGER AND AMENDMENTS (EPN 2009-009)**

DATE: June 16, 2010

COPIES: Matt Litchfield, Director of Water Utility, Greg Gage, SBMWD Engineering Manager

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The San Bernardino Municipal Water Department (Department) received the Notice of Availability of a Draft Environmental Impact Report (DEIR) for the San Bernardino Merged Area A – Merger and Amendments. The Department has reviewed the DEIR and is providing its written response within the public review period of June 2, 2010 through July 16, 2010.

The DEIR addresses the Redevelopment Agency's plan to merge seven (7) previously established redevelopment project areas. The proposed project is located in the southeastern portion of the City of San Bernardino. The project area encompasses approximately 2,823 acres in the Department's Lower Pressure Zone with land use designations of single and multi-family residential, industrial, commercial, open space, and vacant land. The Department previously responded to Mr. Brian Allee of RBF Consulting on December 16, 2009 and yourself on December 10, 2009. (See attached copies) **B1**

The San Bernardino Merged Area A - Merger and Amendments DEIR will combine existing redevelopment project areas with no specific construction projects identified. Upon submittal of future water related construction projects, the Department will review and comment as required. Accordingly, the Department is submitting three minor comments on the DEIR reviewed and has listed each below: **B2**

- In Section 1, page 37, heading "Water": change the Level of Significance Before Mitigation to "Potentially Significant Impact".
- In Section 1, page 37, heading "Water": add "Water infrastructure upgrades (i.e. pipeline diameter increases for fire flow) may be necessary. Applicant shall submit a hydraulic analysis to the San Bernardino Municipal Water Department prior to issuance of a building permit for any future development project." **B3**

SUBJECT: NOTICE OF AVAILABILITY OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT FOR SAN BERNARDINO MERGED AREA A - MERGER AND AMENDMENTS (EPN 2009-009)

- In Section 1, page 38, heading "Wastewater": top of the page Mitigation Measure WW-3 change to read "Prior to issuance of a building permit for any future development project, the project applicant shall provide evidence that the City and the City of San Bernardino Municipal Water Department has sufficient wastewater transmission and treatment plant capacity to accept sewage flows from buildings for which building permits are being requested." **B4**

Please contact me at (909) 384-5092 for further assistance. Please reference EPN 2009-009 in any communications regarding this project.

Sincerely,

Michael Nevarez
Water Utility Engineer

MN:jmt

CITY OF SAN BERNARDINO
MUNICIPAL WATER DEPARTMENT

BOARD OF WATER COMMISSIONERS

TONI CALLICOTT
President

Commissioners
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NORINE I. MILLER
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Director of Water Reclamation
DON SHACKELFORD
Director of Finance
VALERIE HOUSEL
Director of Environmental &
Regulatory Compliance

"Trusted, Quality Service since 1905"

December 16, 2009

Mr. Brian Allee
Project Planner/Environmental Analyst
RBF Consulting
14725 Alton Parkway
Irvine, CA 92618-2027

Dear Mr. Allee:

RE: RESPONSE TO SAN BERNARDINO REDEVELOPMENT PROJECT AREA MERGER – AREA A ENVIRONMENTAL IMPACT REPORT (EPN 2009-009)

The San Bernardino Municipal Water Department (Department) received the letter indicating the preparation of an Environmental Impact Report (EIR) along with a questionnaire. The questionnaire included eight (8) questions in reference to the Department's water system and Redevelopment Project Area A; however, the background information provided with the project does not discuss any specific construction projects.

In accordance with our phone conversation on December 4, 2009, the Department previously sent a copy of its Water Facilities Master Plan (Master Plan) dated August 2007 to Rosenow Spevacek Group Inc. (RSG). The Master Plan contains sufficient information to address the majority of the questions; therefore, the Department will refer to the Master Plan in the attached response when appropriate.

The following is the Department's response to the Redevelopment Project Area Merger – Area A questionnaire (Area A):

1. The Department production capacity can be found in Section 4 of the Master Plan, more specifically Table 4-1. Area A is located within the Department's Lower Pressure Zone,

300 North "D" Street, San Bernardino, California 92418 P.O. Box 710, 92402 Phone: (909) 384-5141
FACSIMILE NUMBERS: Administration: (909) 384-5215 Engineering: (909) 384-5532 Customer Service: (909) 384-7211
Corporate Yards: (909) 384-5260 Water Reclamation Plant: (909) 384-5258

and the production data is broken down for each zone in Table 4-1. The Department production capacity for 2006-2008 is also provided below:

	2006	2007	2008
Production	57,391 ac-ft	59,594 ac-ft	57,237 ac-ft

2. The Department has provided information regarding unit flow factors and projected water demands in Section 3, Tables 3-2, 3-3, and 3-4 of the Master Plan. The Department has run a system evaluation to determine if the existing facilities can meet the current and projected water demands. The results are outlined in Section 6 of the Master Plan. The information provided discusses the merger of seven (7) existing redevelopment project areas and no specific construction projects. The Department cannot project future water demand for your project without additional project-specific data.

3. Please refer to Section 5 of the Master Plan for existing facilities within the Lower Pressure Zone. Section 5 addresses existing piping by size, type, and age. This section also shows existing pump stations, pressure regulating stations, storage reservoirs, and the locations for each. Section 5 of the Master Plan also includes a system hydraulic schematic included as Figure 5-1 for your review.

4. Please refer to Section 4 of the Master Plan for historical production data. The Department compiles water quality data collected annually and delivers a Consumer Confidence Report to our customers. The past six (6) years of Consumer Confidence Reports are available on the Department's web site located at:

   http://www.ci.sanbernardino.ca.us/sbmwd_residents/consumer_confidencereports.asp

   The California Department of Public Health (CDPH) requires monitoring of water production source locations and the distribution system. To date the Department's water quality data collected does not indicate any significant health concerns. With the information provided, the Department cannot predict the impacts on future groundwater quality.

5. Please refer to Section 6 of the Master Plan to review the Department's evaluation of the water system distribution facilities and the ability to meet current and projected water demands. Section 6.4.1 discusses the Lower Pressure Zone observations and identified deficiencies. With the information provided the Department cannot provide specific facility upgrades.

6. SB 610 requires a formal written request to the City Planner who in turn will notify the Department's General Manager in writing to start and complete the Water Supply Assessment (WSA) process within ninety (90) days. The request for a WSA must meet the minimum requirements of the California Water Code, Section 10910 for the Department to proceed. The current 2005 Urban Water Management Plan (UWMP) contains projected water demands from 2005-2025. Projected water demands are based on current land uses and water billing data. The Department's 2005 UWMP can be located on the Department website at:

   http://www.ci.san-bernardino.ca.us/sbmwd_divisions/water_utility/engineering2005_urban_water_management_plan_.asp .

   No specific construction projects are identified for the Area A project, and therefore the Department cannot provide any additional demand information.

7. Please see Section 6, page 6-8 ("E") for the approximate gallon per minute (gpm) production capacity, and page 6-10 ("F") for the projected demand and the approximate additional supply capacity required to meet that demand. Section 6 discusses the evaluation of the water system distribution facilities and the ability to meet current and projected water demands. Pages 6-7 through 6-11 address the Lower Pressure Zone which covers the Area A project location.

8. The Department has provided the 2005 UWMP, 2007 Water Facilities Master Plan, and the Consumer Confidence Reports for the past 6 years to assist in the completion of the Environmental Impact Report for your project. The Department also provides all the Rules and Regulations approved by the Board of Water Commissioners on its website. Unless specific construction projects are identified, the Department has no further comments on the current project. The Department will provide further review as specific projects are identified.

If you have any further questions please contact me at (909) 384-5092 or e-mail me at Nevarez_mi@sbcitywater.org. Please reference EPN 2009-009 in any communications regarding this project.

Sincerely,

Michael Nevarez
Water Utility Engineer

MN:jmt

cc: Greg Gage, SBMWD Engineering Manager

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CITY OF SAN BERNARDINO
MUNICIPAL WATER DEPARTMENT
INTEROFFICE MEMORANDUM

TO: Mr. Jeffrey Smith, AICP, Senior Urban Planner
Redevelopment Agency

FROM: Mike Nevarez, Water Utility Engineer
San Bernardino Municipal Water Department

SUBJECT: **NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR SAN BERNARDINO REDEVELOPMENT PROJECT AREA MERGER – AREA A, (EPN 2009-009)**

DATE: December 10, 2009

COPIES: Matt Litchfield, Director of Water Utility, Greg Gage, SBMWD Engineering Manager

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The San Bernardino Municipal Water Department (Department) received the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the San Bernardino Redevelopment Project Area Merger - Area A. The Department has reviewed the NOP and is providing its written response within the public review period of November 24, 2009 through December 23, 2009.

The NOP discusses the Redevelopment Agency's plan to merge seven (7) previously established redevelopment project areas. The proposed project is located in the eastern portion of the City of San Bernardino. The project area encompasses approximately 2,823 acres in the Department's Lower Pressure Zone with land use designations of single and multi-family residential, industrial, commercial, open space, and vacant land. The Department was previously contacted by the Redevelopment Agency's consulting firm Rosenow Spevacek Group Inc (RSG). The Department responded to an initial set of questions in its October 7, 2009 correspondence to RSG.

The San Bernardino Redevelopment Project Area Merger – Area A consists of combining existing redevelopment project areas with no specific construction projects identified. Accordingly, the Department has no comments on the DEIR submitted. Upon submittal of future construction projects requiring water service or upgrades to the Departments facilities, the Department will review and comment as required.

If you have any further questions please contact me at (909) 384-5092 for further assistance. Please reference EPN 2009-009 in any communications regarding this project.

Sincerely,

Michael Nevarez
Water Utility Engineer

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B. RESPONSES TO COMMENTS FROM MIKE NEVAREZ, WATER UTILITY ENGINEER, SAN BERNARDINO MUNICIPAL WATER DEPARTMENT, DATED DECEMBER 10, 2009 AND JUNE 16, 2010.

B1. Comment acknowledged. The City of San Bernardino Municipal Water Department provided comments on the Notice of Preparation (letter dated December 10, 2009), as well as provided information to RBF Consulting (letter dated December 16, 2009). The information in both letters was utilized to prepare the Draft EIR.

B2. Comment acknowledged. It is anticipated that future development projects would be required to be reviewed and commented on by all applicable City Departments or agencies, including the City of San Bernardino Municipal Water Department.

B3. The Commentator has suggested the inclusion of a mitigation measure for future development projects. The inclusion of the mitigation would change the level of significance, both before and after mitigation in the EIR. However, the inclusion of the mitigation does not constitute new information that would require recirculation, as the mitigation reflects standards procedures used by the City of San Bernardino Municipal Water Department.

Thus, the text on page 1-37 in Section 1.5, Summary of Environmental Impacts and Mitigation Measures, of the Draft EIR will be revised as follows in the Final EIR:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
WATER			
Implementation of the proposed project could result in increased demand for water supplies and infrastructure within the City.	~~Less Than Significant Impact.~~ Potentially Significant Impact.	~~No mitigation measures beyond the goals and policies identified in the General Plan are required.~~ WAT-1 Prior to the issuance of a building permit for any future development project, the project applicant shall submit a hydraulic analysis to the San Bernardino Municipal Water Department to determine if water infrastructure upgrades (i.e., pipeline diameter increases for fire flow) are necessary. If the hydraulic analysis determines that upgrades are necessary, the project	~~Not Applicable.~~ Less Than Significant Impact.

		applicant shall be responsible for their fair-share of the improvements.	

In addition, the text on page 5.16.8 of the Draft EIR will be revised as follows in the Final EIR:

5.16.4 PROJECT IMPACTS AND MITIGATION MEASURES

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN INCREASED DEMAND FOR WATER SUPPLIES AND INFRASTRUCTURE WITHIN THE CITY.**

Level of Significance Before Mitigation: ~~Less Than Significant Impact~~ Potentially Significant Impact.

Also, the text on page 5.16-13 of the Draft EIR will be revised as follows in the Final EIR:

Mitigation Measures: ~~No mitigation measures beyond the goals and policies identified in the General Plan are required.~~

WAT-1 Prior to the issuance of a building permit for any future development project, the project applicant shall submit a hydraulic analysis to the San Bernardino Municipal Water Department to determine if water infrastructure upgrades (i.e., pipeline diameter increases for fire flow) are necessary. If the hydraulic analysis determines that upgrades are necessary, the project applicant shall be responsible for their fair-share of the improvements.

Level of Significance After Mitigation: ~~Not Applicable.~~ Less Than Significant Impact.

B4. The Commentator has suggested revised wording for Mitigation Measure WW-3. The Redevelopment Agency has no concerns with the proposed revision as the intent of the mitigation measures remains the same; thus, the revision will be made in the Final EIR.

Mitigation Measure WW-3 on pages 1-38 and 5.17-10 of the Draft EIR will be revised as follows in the Final EIR:

WW-3	Prior to issuance of a building permit for any future development project, the project applicant shall provide evidence that the City and the City of San Bernardino Municipal Water Department has sufficient wastewater transmission and treatment plant capacity to accept sewage flows from buildings for which building permits are being requested.

COMMENT LETTER C

Jeff Smith

From: Brett Clavio [Brett.Clavio@omnitrans.org]
Sent: Wednesday, June 30, 2010 8:53 AM
To: Jeff Smith
Subject: Merged Area A Draft EIR
Attachments: TOD_policy.pdf; downtown-transit-village.pdf

Hello Jeff,

Thanks for sending us a copy of the Merged Area A Draft EIR.

The only comment or question that I had was regarding the amount of housing units proposed for the downtown.

While 170 housing units are included in table 1-1 for the station area, these units were envisioned for Block 'P' only- the area b/w the transit center and the ball field.

With the potential convergence of sbx, Omnitrans, and Metrolink stations at the transit center- I would encourage the city to look at providing for a greater number of housing units within the catchment area- ¼ to ½ mile radius area. **C1**

You may want to take a look at MTC's Housing units per station area on table 3 attached.

Thus, you may want at least 3,300 housing units - to support the intermodal station.
I believe FTA will be looking for similar data.
I'm not asking that you insert these numbers now, but that you may want to consider this for the future.
I believe EDAW and Cooper Carry and Gruen were all proposing these amounts of housing units. Please see attachment.

Thanks.

Regards,
Brett

MTC RESOLUTION 3434 TRANSIT-ORIENTED DEVELOPMENT (TOD) POLICY FOR REGIONAL TRANSIT EXPANSION PROJECTS

Adopted July 27, 2005

1. Purpose

The San Francisco Bay Area — widely recognized for its beauty and innovation — is projected to grow by almost two million people and one and a half million jobs by 2030. This presents a daunting challenge to the sustainability and the quality of life in the region. Where and how we accommodate this future growth, in particular where people live and work, will help determine how effectively the transportation system can handle this growth.

The more people who live, work and study in close proximity to public transit stations and corridors, the more likely they are to use the transit systems, and more transit riders means fewer vehicles competing for valuable road space. The policy also provides support for a growing market demand for more vibrant, walkable and transit convenient lifestyles by stimulating the construction of at least 42,000 new housing units along the region's major new transit corridors and will help to contribute to a forecasted 59% increase in transit ridership by the year 2030.

This TOD policy addresses multiple goals: improving the cost-effectiveness of regional investments in new transit expansions, easing the Bay Area's chronic housing shortage, creating vibrant new communities, and helping preserve regional open space. The policy ensures that transportation agencies, local jurisdictions, members of the public and the private sector work together to create development patterns that are more supportive of transit.

TABLE 1: Resolution 3434 Transit Extension Projects Subject to Corridor Thresholds

Project	Sponsor	Type	Threshold is met with current development?
BART East Contra Costa Rail Extension	BART/CCTA	Commuter Rail	No
BART — Downtown Fremont to San Jose/Santa Clara (a) Fremont to Warm Springs (b) Warm Springs to San Jose/ Santa Clara	(a) BART (b) VTA	BART extension	No
AC Transit Berkeley/Oakland/ San Leandro Bus Rapid Transit: Phase 1	AC Transit	Bus Rapid Transit	Yes
Caltrain Downtown Extension/Rebuilt Transbay Terminal	TJPA	Commuter Rail	Yes
MUNI Third Street Light Rail Transit Project Phase 2 — New Central Subway	MUNI	Light Rail	Yes
Sonoma-Marin Rail	SMART	Commuter Rail	No
Dumbarton Rail	SMTA, ACCMA, VTA, ACTIA, Capitol	Corridor Commuter Rail	No
Expanded Ferry Service Phase 1: Berkeley, Alameda/Oakland/Harbor Bay, and South San Francisco to San Francisco (Note 1)	WTA	Ferry	No
Expanded Ferry Service Phase 2: Alameda to South San Francisco, and Hercules, Antioch, Treasure Island, Redwood City and Richmond to San Francisco (Note 1)	WTA	Ferry	No

Note 1: The WTA Ferry Expansion "Corridor" for the purposes of the TOD policy consists of all new terminals planned in Phase 1 and Phase 2.

There are three key elements of the regional TOD policy:

(a) Corridor-level thresholds to quantify appropriate minimum levels of development around transit stations along new corridors;

(b) Local station area plans that address future land use changes, station access needs, circulation improvements, pedestrian-friendly design, and other key features in a transit-oriented development; and

(c) Corridor working groups that bring together CMAs, city and county planning staff, transit agencies, and other key stakeholders to define expectations, timelines, roles and responsibilities for key stages of the transit project development process.

2. TOD Policy Application

The TOD policy only applies to physical transit extensions funded in Resolution 3434 (see Table 1). The policy applies to any physical transit extension project with regional discretionary funds, regardless of level of funding. Resolution 3434 investments that only entail level of service improvements or other enhancements without physically extending the system are not subject to the TOD policy requirements. Single station extensions to international airports are not subject to the TOD policy due to the infeasiblity of housing development.

3. Definitions and Conditions of Funding

For purposes of this policy "regional discretionary funding" consists of the following sources identified in the Resolution 3434 funding plan:

- FTA Section 5309- New Starts
- FTA Section 5309- Bus and Bus Facilities Discretionary
- FTA Section 5309- Rail Modernization
- Regional Measure 1- Rail (bridge tolls)
- Regional Measure 2 (bridge tolls)
- Interregional Transportation Improvement Program
- Interregional Transportation Improvement Program-Intercity rail
- Federal Ferryboat Discretionary
- AB 1171 (bridge tolls)
- CARB-Carl Moyer/AB434 (Bay Area Air Quality Management District)*

These regional funds may be programmed and allocated for environmental and design related work, in preparation for addressing the requirements of the TOD policy. Regional funds may be programmed and allocated for right-of-way acquisition in advance of meeting all requirements in the policy, if land preservation for TOD or project delivery purposes is essential. No regional funds will be programmed and allocated for construction until the requirements of this policy have been satisfied. See Table 2 for a more detailed overview of the planning process.

TABLE 2: Regional TOD Policy Implementation Process for Transit Extension Projects

Transit Agency Action	City Action	MTC/CMA/ABAG Action
All parties in corridors that do not currently meet thresholds (see Table 1) establish Corridor Working Group to address corridor threshold. Conduct initial corridor performance evaluation, initiate station area planning.		
Environmental Review/ Preliminary Engineering/ Right-of-Way	Conduct Station Area Plans	Coordination of corridor working group, funding of station area plans
Step 1 Threshold Check: *the combination of new Station Area Plans and existing development patterns exceeds corridor housing thresholds .*		
Final Design	Adopt Station Area Plans. Revise general plan policies and zoning, environmental reviews	Regional and county agencies assist local jurisdictions in implementing station area plans
Step 2 Threshold Check: *(a) local policies adopted for station areas; (b) implementation mechanisms in place per adopted Station Area Plan by the time Final Design is completed.*		
Construction	Implementation (financing, MOUs) Solicit development	TLC planning and capital funding, HIP funding

* The Carl Moyer funds and AB 434 funds are controlled directly by the California Air Resources Board and Bay Area Air Management District. Res. 3434 identifies these funds for the Caltrain electrification project, which is not subject to the TOD policy.

4. Corridor-Level Thresholds

Each transit extension project funded in Resolution 3434 must plan for a minimum number of housing units along the corridor. These corridor-level thresholds vary by mode of transit, with more capital-intensive modes requiring higher numbers of housing units (see Table 3). The corridor thresholds have been developed based on potential for increased transit ridership, exemplary existing station sites in the Bay Area, local general plan data, predicted market demand for TOD-oriented housing in each county, and an independent analysis of feasible development potential in each transit corridor.

- Meeting the corridor level thresholds requires that within a half mile of all stations, a combination of existing land uses and planned land uses meets or exceeds the overall corridor threshold for housing (listed in Table 3);
- Physical transit extension projects that do not currently meet the corridor thresholds with development that is already built will receive the highest priority for the award of MTC's Station Area Planning Grants.
- To be counted toward the threshold, planned land uses must be adopted through general plans, and the appropriate implementation processes must be put in place, such as zoning codes. General plan language alone without supportive implementation policies, such as zoning, is not sufficient for the purposes of this policy. Ideally, planned land uses will be formally adopted through a specific plan (or equivalent), zoning codes and general plan amendments along with an accompanying programmatic Environmental Impact Report (EIR) as part of the overall station area planning process. Minimum densities will be used in the calculations to assess achievement of the thresholds.
- An existing end station is included as part of the transit corridor for the purposes of calculating the corridor thresholds; optional stations will not be included in calculating the corridor thresholds.
- New below-market housing units will receive a 50 percent bonus toward meeting the corridor threshold (i.e. one planned below-market housing unit counts for 1.5 housing units for the purposes of meeting the corridor threshold. Below market for the purposes of the Resolution 3434 TOD policy is affordable to 60% of area median income for rental units and 100% of area median income for owner-occupied units);
- The local jurisdictions in each corridor will determine job and housing placement, type, density, and design.
- The Corridor Working Groups are encouraged to plan for a level of housing that will significantly exceed the housing unit thresholds stated here during the planning process. This will ensure that the Housing Unit Threshold is exceeded corridor-wide and that the ridership potential from TOD is maximized.

5. Station Area Plans

Each proposed physical transit extension project seeking funding through Resolution 3434 must demonstrate that the thresholds for the corridor are met through existing development and adopted station area plans that commit local jurisdictions to a level of housing that meets the threshold. This requirement may be met by existing station area plans accompanied by appropriate zoning and implementation mechanisms. If new station area plans are needed to meet the corridor threshold, MTC will assist in funding the plans. The Station Area Plans shall be conducted by local governments in coordination with transit agencies, Association of Bay Area Governments (ABAG), MTC and the Congestion Management Agencies (CMAs).

Station Area Plans are opportunities to define vibrant mixed use, accessible transit villages and quality transit-oriented development – places where people will want to live, work, shop and spend time. These plans should incorporate mixed-use developments, including new housing, neighborhood serving retail, employment, schools, day care centers, parks and other amenities to serve the local community.

TABLE 3: Corridor Thresholds Housing Units — Average per Station Area

Project Type	BART	Light Rail	Bus Rapid Transit	Commuter Rail	Ferry
Housing Threshold	**3,850**	**3,300**	**2,750**	**2,200**	**750**

Each corridor is evaluated for the Housing Threshold. For example, a four station commuter rail extension (including the existing end-of-the-line station) would be required to meet a corridor-level threshold of 8,800 housing units.

Threshold figures above are an average per station area based on both existing land uses and planned development within a half mile of all stations. New below market rate housing is provided a 50% bonus towards meeting housing unit threshold.

At a minimum, Station Area Plans will define both the land use plan for the area as well as the policies—zoning, design standards, parking policies, etc.—for implementation. The plans shall at a minimum include the following elements:

- Current and proposed land use by type of use and density within the half-mile radius, with a clear identification of the number of existing and planned housing units and jobs;
- Station access and circulation plans for motorized, non-motorized and transit access. The station area plan should clearly identify any barriers for pedestrian, bicycle and wheelchair access to the station from surrounding neighborhoods (e.g., freeways, railroad tracks, arterials with inadequate pedestrian crossings), and should propose strategies that will remove these barriers and maximize the number of residents and employees that can access the station by these means. The station area and transit village public spaces shall be made accessible to persons with disabilities.
- Estimates of transit riders walking from the half mile station area to the transit station to use transit;
- Transit village design policies and standards, including mixed use developments and pedestrian-scaled block size, to promote the livability and walkability of the station area;
- TOD-oriented parking demand and parking requirements for station area land uses, including consideration of pricing and provisions for shared parking;
- Implementation plan for the station area plan, including local policies required for development per the plan, market demand for the proposed development, potential phasing of development and demand analysis for proposed development.

The Station Area Plans shall be conducted using existing TOD design guidelines that have already been developed by ABAG, local jurisdictions, transit agencies, the CMAs and others. MTC will work with ABAG to provide more specific guidance on the issues listed above that must be addressed in the station area plans and references and information to support this effort. MTC is conducting an analysis of parking policies that will be made available when complete, and shall be considered in developing local parking policies for TODs.

6. Corridor Working Groups

The goal of the Corridor Working Groups is to create a more coordinated approach to planning for transit-oriented development along Resolution 3434 transit corridors. Each of the transit extensions subject to the corridor threshold process, as identified in Table 1, will need a Corridor Working Group, unless the current level of development already meets the corridor threshold. Many of the corridors already have a transit project working group that may be adjusted to take on this role. The Corridor Working Group shall be coordinated by the relevant CMAs, and will include the sponsoring transit agency, the local jurisdictions in the corridor, and representatives from ABAG, MTC, and other parties as appropriate.

The Corridor Working Group will assess whether the planned level of development satisfies the corridor threshold as defined for the mode, and assist in addressing any deficit in meeting the threshold by working to identify opportunities and strategies at the local level. This will include the key task of distributing the required housing units to each of the affected station sites within the defined corridor. The Corridor Working Group will continue with corridor evaluation, station area planning, and any necessary refinements to station locations until the corridor threshold is met and supporting Station Area Plans are adopted by the local jurisdictions.

MTC will confirm that each corridor meets the housing threshold prior to the release of regional discretionary funds for construction of the transit project.

7. Review of the TOD Policy

MTC staff will conduct a review of the TOD policy and its application to each of the affected Resolution 3434 corridors, and present findings to the Commission, within 12 months of the adoption of the TOD policy.

For More Information

James Corless • jcorless@mtc.ca.gov • 510.817.5709
Valerie Knepper • vknepper@mtc.ca.gov • 510.817.5824

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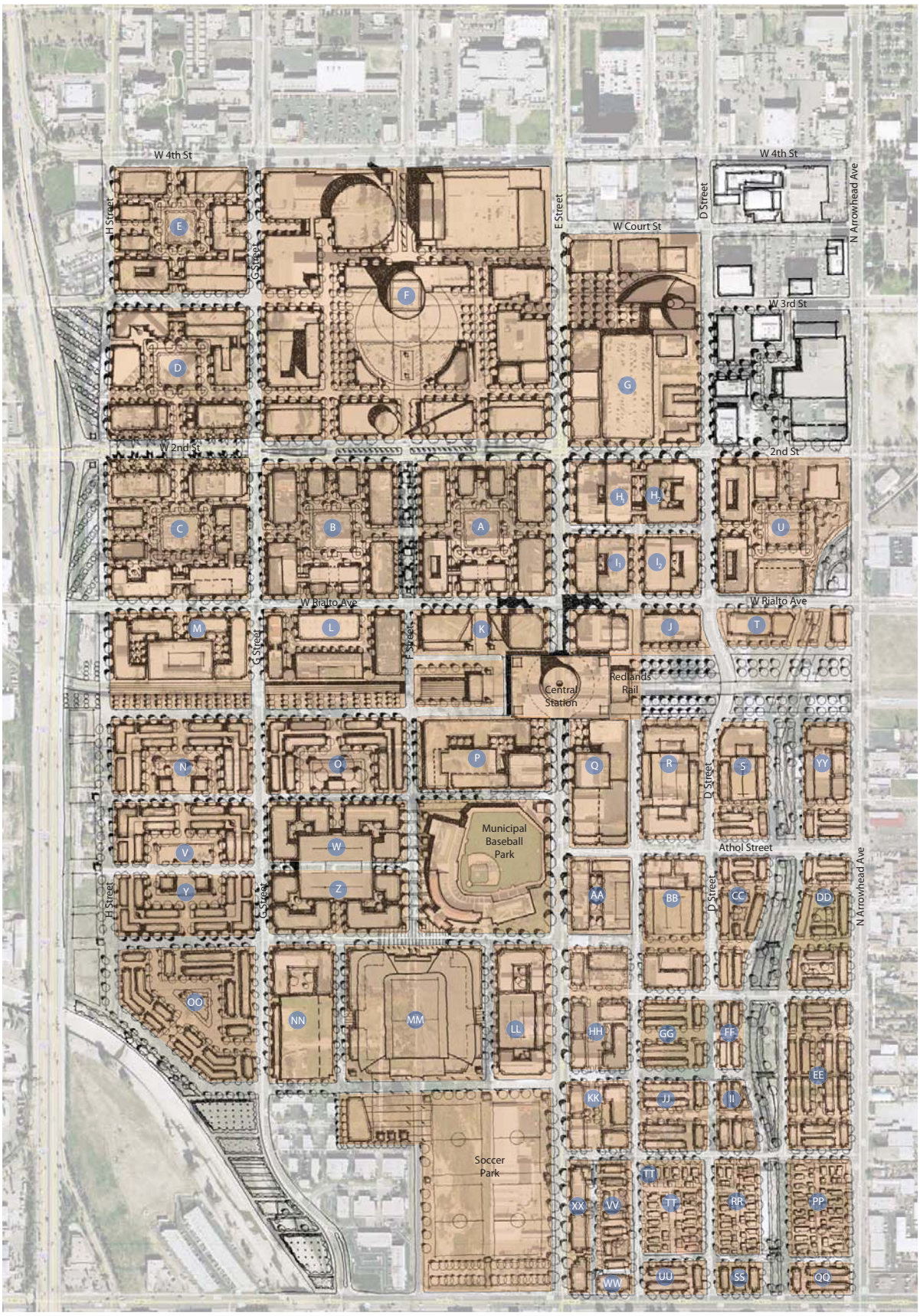

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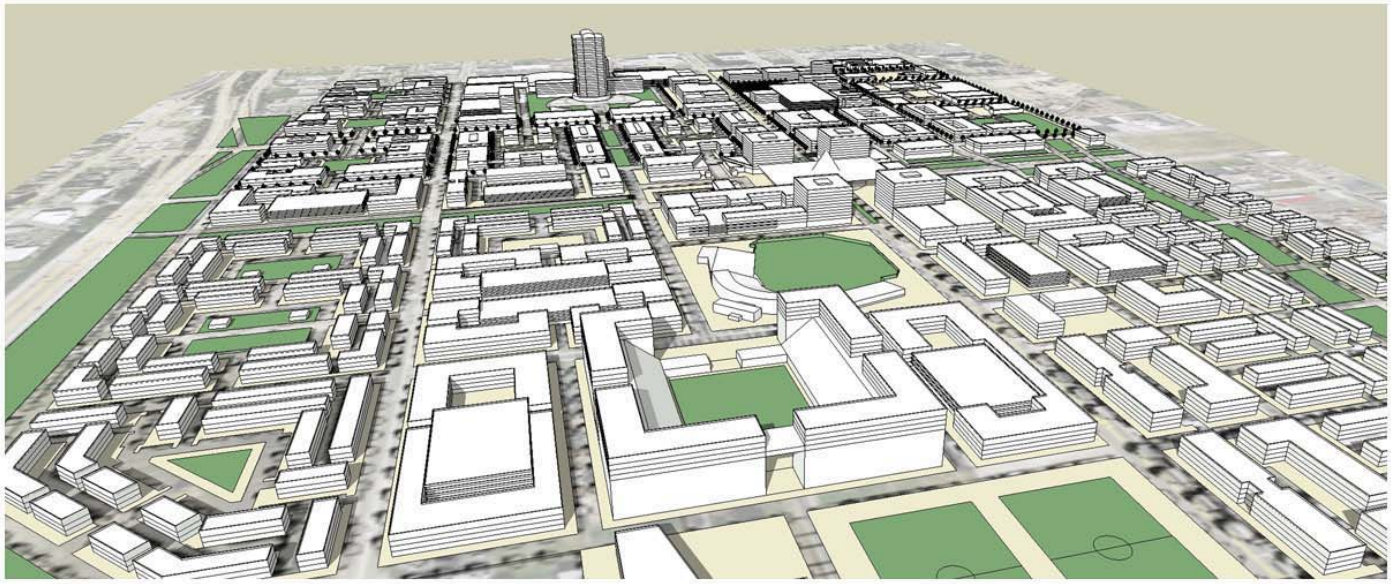
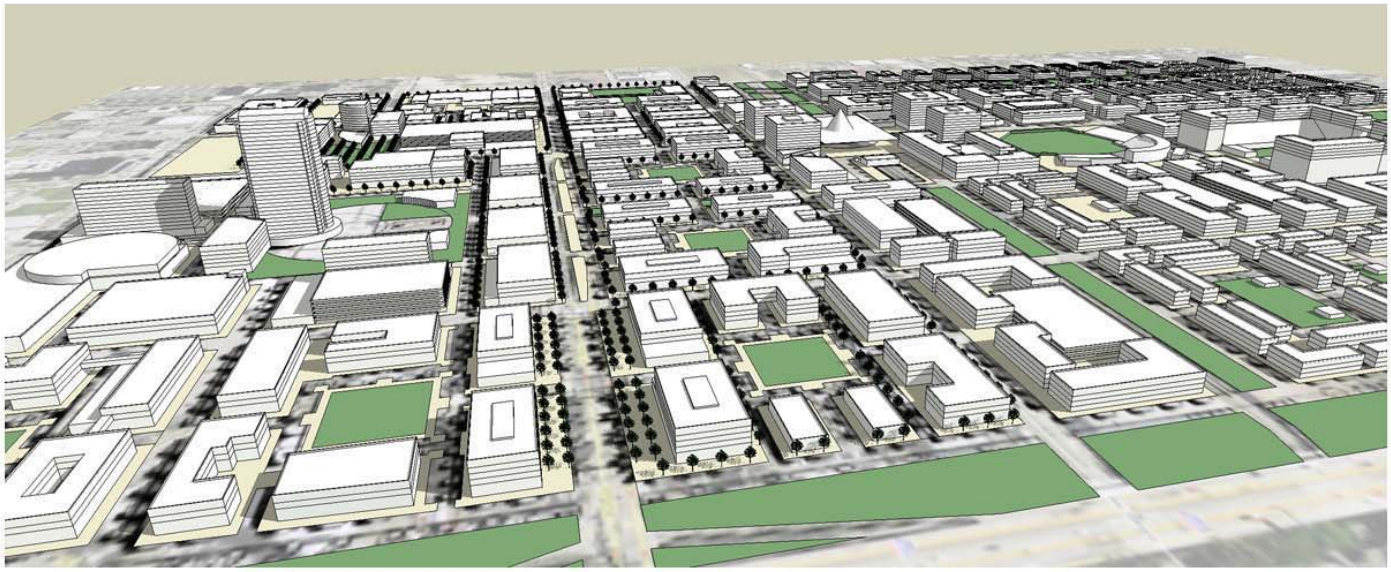
COOPER CARRY

SAN BERNARDINO DOWNTOWN PROJECT PLAN
Proposed Block Diagram





Draft Land Use Matrix San Bernardino Transit Downtown

Block	Land Use	Square Footage	Floor(s)	Units/Keys	Pkg. Req'd	Pkg. Prov.
A	Retail	90,000			450	
	Office	250,000			575	
	Residential	98,824		80	120	156
	Park	36,000				
	Total	**438,824**		**80**	**1,145**	**156**
B	Retail	74,000			370	
	Office	150,000			345	
	Residential	98,824		80	120	156
	Park	36,000				
	Total	**322,824**		**80**	**835**	**156**
C	Retail	20,000			100	
	Office	136,000			313	
	Residential	98,824		80	120	156
	Park	36,000				
	Total	**254,824**		**80**	**533**	**156**
D	Retail	20,000			100	
	Office	135,000			311	
	Residential	98,824		80	120	156
	Park	36,000				
	Total	**253,824**		**80**	**531**	**156**
E	Retail	10,000			50	
	Office	136,000			313	
	Residential	98,824		80	120	156
	Park	36,000				
	Total	**244,824**		**80**	**483**	**156**
F	Retail	30,000			150	
	Office	200,000			460	
	Residential					
	Hotel	258,823		400	400	1,000
	Cultural	120,000			120	1,028
	Civic/Public	500,000			500	1,500
	Convention	300,000			300	
	Park	217,000				
	Total	**1,408,823**			**1,930**	**3,528**

Block	Land Use	Square Footage	Floor(s)	Units/Keys	Pkg. Req'd	Pkg. Prov.
G	Existing City Hall Site					
H1	Retail	20,000			100	
	Office	100,000			230	
H2	Residential	185,294		150	225	480
	Total	**305,294**		**150**	**555**	**480**
I1	Retail	20,000			100	
	Office	100,000			230	
I2	Residential	118,588		96	144	480
	Total	**238,588**		**96**	**474**	**480**
J	Retail	20,000			100	
	Office	250,000			575	
	Residential	0				
	Total	**270,000**			**675**	**0**
K	Retail	45,000			225	
	Office	250,000			575	500
	Residential					
	Total	**295,000**			**800**	**500**
L	Retail	20,000			100	
	New Office	50,000			115	553
	Exist.Office	50,000			115	
	Residential	55,588		45	68	
	Total	**175,588**		**45**	**398**	**553**
M	Residential	178,500		200	300	775
	Total	**178,500**		**200**	**120**	**775**
N	Residential	180,000		50	Self Pkd	
	Park	37,500				
	Total	**180,000**		**50**	**0**	
O	Residential	180,000		50	Self Pkd	
	Park	37,500				
	Total	**180,000**		**50**	**0**	

Block	Land Use	Square Footage	Floor(s)	Units/Keys	Pkg. Req'd	Pkg. Prov.
P	Retail	30,000			150	
	Office	200,000			460	
	Residential	151,725		170	255	800
	Total	**381,725**		**170**	**865**	**800**
Q	Retail	20,000			100	
	Office	250,000			575	
	Residential					
	Total	**270,000**		**675**		
R	Residential	117,810		132	198	
	Total	**117,810**		**132**	**198**	**530**
S	Residential	117,810		132	198	
	Total	**117,810**		**132**	**198**	**230**
T	Office	50,000			115	
	Total	**50,000**			**115**	
U	Residential	71,400		80	120	117
	Total	**71,400**		**80**	**120**	**117**
V	Residential	160,000		135	Self Pkd	
	Park	22,500				
	Total	**160,000**		**135**	**0**	
W	Residential	160,000		135	Self Pkd	
	Park	22,500				
	Total	**160,000**		**135**	**0**	
X	Stadium					
	Total					
Y	Residential	160,000		135	Self Pkd	
	Park	22,500				
	Total	**160,000**		**135**	**0**	
Z	Residential	160,000		135	Self Pkd	
	Park	22,500				
	Total	**160,000**		**135**	**0**	
AA	TH Resid	59,500		28	Self Pkd	
	Work Units	16,320		8	38	
	Total	**75,820**		**36**	**0**	
BB	Residential	178,500		200	300	
	Total	**178,500**		**200**	**300**	**465**

Block	Land Use	Square Footage	Floor(s)	Units/Keys	Pkg. Req'd	Pkg. Prov.
CC	TH Resid	76,500		45	Self Pkd	
	Total	**76,500**		**45**	**0**	
DD	TH Resid	102,000		60	Sefl Pkd	
	Total	**102,000**		**60**	**0**	
EE	TH Resid	153,000		90	Self Pkd	
	Total	**153,000**		**90**	**0**	
FF	TH Resid	30,600		18	Self Pkd	
	Total	**30,600**		**18**	**0**	
GG	Residential	185,640		208	312	
	Total	**185,640**		**208**	**312**	**460**
HH	Live/Work	76,500		45	45	
	Total	**76,500**		**45**	**45**	**45**
II	TH Resid	34,000		20	Self Pkd	
	Total	**34,000**		**20**		
JJ	TH Resid	68,000		40	Self Pkd	
	Total	**68,000**		**40**		
KK	Live/Work	76,500		45	45	
	Total	**76,500**		**45**	**45**	**45**
LL	Live/Work	229,500		135	Self Pkd	
	Total	**229,500**		**135**		
MM	Stadium					
	Residential	89,250		100	150	
	Total	**89,250**		**100**	**150**	
NN	Residential	149,940		168	252	
	Retail	23,000			115	
	Total	**172,940**		**168**	**367**	**1000**
OO	TH Resid	163,200		96	Self Pkd	
	Total	**163,200**		**96**		
PP	SF Resid.	34,000		20	Self Pkd	
	Total	**34,000**		**20**		
QQ	SF Resid	30,600		18	Self Pkd	
	Total	**30,600**		**18**		

Block	Land Use	Square Footage	Floor(s)	Units/Keys	Pkg. Req'd	Pkg. Prov.
RR	SF Resid	32,300		19	Self Pkd	
	Total	**32,300**		**19**		
SS	SF Resid	20,400		12	Self Pkd	
	Total	**20,400**		**12**		
TT	SF Resid	34,000		20	Self Pkd	
	Total	**34,000**		**20**		
UU	SF Resid	30,600		18	Self Pkd	
	Total	**30,600**		**18**		
VV	TH Resid	40,800		24	Self Pkd	
	Total	**40,800**		**24**		
WW	Live/Work	13,600		8	12	
	Total	**13,600**		**8**	**12**	**12**
XX	Live/Work	42,840		21	31	
	Total	**42,840**		**21**	**31**	**31**
YY	TH Resid	42,500		25	Self Pkd	
	Total	**42,500**		**25**		
Block	**Land Use**	**Square Footage**	**Floor(s)**	**Units/Keys**	**Pkg. Req'd**	**Pkg. Prov.**
	Total	**8,287,825**		**4,186**	**11,090**	**10,874**

TRANSIT DOWNTOWN PROJECT DEVELOPMENT TOTALS					
Retail	**442,000**			**2,210**	
Office	**2,323,320**			**5,345**	
Cultural	**120,000**			**120**	
Civic	**800,000**			**800**	
Residential	**4,485,105**		**3,528**	**3,212**	
Live/Work	438,940		254	90	
TH Resid	770,100		446	0	
SF Resid	181,900		107	0	
Residential	3,094,165		2,721	3,122	
Hotel	**258,823**		**400**	**400**	
TOTAL	**8,429,248**		**3,928**	**12,087**	
				10,831	Parking Provided
Park	**562,000**	**12.9 AC**			

C. RESPONSES TO COMMENTS FROM BRETT CLAVIO, OMNITRANS, DATED JUNE 30, 2010.

C1. The Commentator has noted there are a number of future transportation projects either existing or being planned in the City: sbx, Omnitrans, and Metrolink. In addition, the Commentator has provided information regarding the Metropolitan Transportation Commission's MTC Resolution 3434 Transit-Oriented Development (TOD) Policy for Regional Transit Expansion Projects, Adopted July 27, 2005, and excerpts of texts and maps related to planning for the Downtown Transit Village. The Redevelopment Agency acknowledges receipt of this information.

The Commentator has raised a question regarding the assumption of 170 units for the Intermodal and Transit-Oriented Development, and suggested a total of 3,300 units to support the Intermodal Station. The Redevelopment Agency included the 170 units, based upon information known at the time the Notice of Preparation was issued for the EIR. As noted above, there are a number of planning and transportation project studies being prepared. The City of San Bernardino *San Bernardino Downtown Core Vision & Action Plan*, dated June 2009, is a realistic roadmap for the future revitalization and redevelopment of downtown San Bernardino. It builds around the existing core strengths of government, transportation and education, and would allow Downtown to be distinct from any that exists in a 50-mile radius. The Downtown would be unique and would not compete (i.e., take business from) with other successful areas within the City. Downtown would no longer be populated from 9:00 AM to 5:00 PM., but would transform itself into a Downtown where people live, work, and socialize around the clock. There is the potential that these studies will identify different residential or non-residential numbers than those identified in this EIR. Should that be the case, further environment analysis may be necessary, and as part of that analysis, the development potential would be reviewed to ensure consistency with the Redevelopment Plan and the General Plan Goals and Policies.

COMMENT LETTER D

DEPARTMENT OF PUBLIC WORKS

FLOOD CONTROL • LAND DEVELOPMENT & CONSTRUCTION
SOLID WASTE MANAGEMENT • SURVEYOR • TRANSPORTATION

COUNTY OF SAN BERNARDINO

825 East Third Street • San Bernardino, CA 92415-0835 • (909) 387-8104
Fax (909) 387-8130

GRANVILLE M. "BOW" BOWMAN, P.E., P.L.S.
Director of Public Works

July 12, 2010

File: 10(ENV)-4.01

City of San Bernardino
Redevelopment Agency
Attn: Jeffrey Smith, AICP, Senior Urban Planner
201 North "E" Street, Ste. 301
San Bernardino, CA 92401

RE: NOTICE OF AVAILABILITY OF THE DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT FOR THE SAN BERNARDINO MERGED AREA [A] – MERGER AND AMENDMENTS (SCH #2009111089)

Dear Mr. Smith:

Thank you for giving the San Bernardino County Department of Public Works and Flood Control District the opportunity to comment on the above-referenced project. We have reviewed the documents and provide the following comments:

Flood Control Planning Division (Robert Hollstein, Engineering Tech V, (909) 387-8122)

1. Department of Land Use Services should review the Initial Study/EIR to confirm compliance regarding the redirecting of drainage patterns to off-site properties. **D1**
2. The DEIR does not appear to adequately address any proposed or existing drainage systems. If drainage lines are proposed to be connected to regional facilities (including but not limited to Lytle Creek Flood Control Channel, Twin Creek Flood Control Channel, Warm Creek Flood Control Channel, and/or San Timoteo Creek Flood Control Channel) a hydrology/hydraulic study would need to be submitted to the Flood Control District. **D2**
3. All runoff from the various properties included in the Merged Area [A] must meet all standards set forth by the conditions of the property through the Land Use permit. **D3**
4. Acceptance and approval of said merger will not supersede, limit or reduce any previously established conditions set forth by the Flood Control District. **D4**
5. Any and all drainage of new development must conform to current governing water quality control board requirements. **D5**

Traffic Division (Ed Petre, P.E., Public Works Engineer III, (909) 387-8239)

1. Provide a copy of the traffic report to the County of San Bernardino Traffic Division for our review. **D6**

If you have any questions, please contact the specific individuals that have provided that comment, as listed above.

Sincerely,

NARESH P. VARMA, P.E., Chief
Environmental Management Division

NPV:mp/CEQA Comments - San Bndo Merged Area A.doc

cc: Nancy Sansonetti
GMB/ARI Reading File

GREGORY C. DEVEREAUX
County Administrative Officer

Board of Supervisors
BRAD MITZELFELT ..... First District
PAUL BIANE ..... Second District
JOSIE GONZALES ..... Fifth District
NEIL DERRY ..... Third District
GARY C. OVITT ..... Fourth District

D. RESPONSES TO COMMENTS FROM NARESH P. VARMA, P.E., CHIEF ENVIRONMENTAL MANAGEMENT DIVISION, DEPARTMENT OF PUBLIC WORKS, COUNTY OF SAN BERNARDINO, DATED JULY 12, 2010.

D1. Comment acknowledged. As discussed in Section 2.0, Introduction and Purpose, of the Draft EIR, a Program EIR was prepared for the merger and amendment of seven Project Areas. Consistent with *CEQA Guidelines* Section 15168, the Program EIR has characterized the overall program of the merger and amendment as the project. Section 3.0, Project Description, describes the various components of the proposed project and identifies the redevelopment potential associated with the proposed project (refer to Draft EIR *Table 3-4*). Also consistent with *CEQA Guidelines* Section 15168, when future development projects are proposed, the Redevelopment Agency would be required to examine the individual activities within the program to determine whether their effects were fully analyzed in the Program EIR. Thus, the confirming compliance regarding the redirecting of drainage patterns to off-site properties will be reviewed by the Redevelopment Agency, and other appropriate agencies, once individual development projects have been submitted. Also, Mitigation Measures HYD-1, HYD-2, and HYD-3 address drainage and storm water requirements for individual development projects. Therefore, no revisions to the Draft EIR are necessary.

D2. Refer to Response D1. In addition, Pages 5.11-7 and 5.11-8 of Section 5.11, Hydrology, Drainage, and Water Quality in the Draft EIR address the existing local drainage system within the Project Area. The project proposes the consolidation of seven Project Areas into one Project Area. The proposed project does not propose project specific drainage systems. Several storm drain infrastructure improvements may be constructed with future projects, which would coincide with other improvements as part of the City's Capital Improvement Program. Mitigation Measures HYD-1 through HYD-3 reduce potential impacts for future individual projects to less than significant. Therefore, no revisions to the Draft EIR are necessary.

D3. The comment states that all runoff from the various properties included in the Merged Area A must meet all standards set forth by the conditions of the property through the Land Use Permit. Refer to Responses D1 and D2. In addition, refer to Page 5.11-30 in the Draft EIR. All future developments within the Project Area would be required to comply with all applicable City, County, State, and Federal water quality rules and regulations. Redevelopment Action 10 in the *Merged, Amended, and Restated Development Plan for the San Bernardino Merged Redevelopment Project Area A* states that the Agency would acquire, install, develop, construct, reconstruct, redesign, plan, re-plan, or reuse streets, curbs, gutters, flood control facilities, and other public improvements and public facilities. General Plan goals and policies would further ensure adequate drainage system capacity is available. Mitigation Measure HYD-3 requires new development projects be designed to reduce impacts related to drainage system capacity to less than significant levels. Additionally, the discussion under the Impact Analysis for "Water Quality Standards" on pages 5.11-20 through 5.11-28 of the Draft EIR concludes that the proposed project would not contribute significant amounts of polluted runoff with implementation of Mitigation Measures HYD-1 and HYD-2. Therefore, no revisions to the Draft EIR are necessary.

D4. Comment acknowledged. The approval of the proposed project would not limit or reduce any previously established conditions set forth by the Flood Control District. Therefore, no revisions to the Draft EIR are necessary.

D5. Comment acknowledged. Refer to Responses D1, D2, and D3.

D6. Comment acknowledged. A copy of the traffic report for future development projects, if warranted, will be submitted to the County of San Bernardino Traffic Division for review.

COMMENT LETTER E

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

July 19, 2010

Jeffrey Smith
City of San Bernardino
Economic Development Agency
201 North E Street, Suite 301
San Bernardino, CA 92401

Subject: San Bernardino Merged Area A - Merger and Amendments
SCH#: 2009111089

Dear Jeffrey Smith:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on July 16, 2010, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. **E1**

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Acting Director, State Clearinghouse

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2009111089
Project Title San Bernardino Merged Area A - Merger and Amendments
Lead Agency San Bernardino, City of

Type EIR Draft EIR

Description The proposed project is located in the eastern portion of the City of San Bernardino. The proposed project involves various redevelopment plan amendments and the merger of seven of the Agency's Redevelopment Project Areas. The Redevelopment Project Areas are currently surrounded by developed properties and have been deemed redevelopment areas based on their underutilization. Currently, the seven Redevelopment Project Areas consist of many land uses, not all of which are being utilized to their highest and best use, but improving with the implementation of redevelopment projects.

Lead Agency Contact

Name Jeffrey Smith
Agency City of San Bernardino
Phone 909-663-1044 **Fax**
email
Address Economic Development Agency
201 North E Street, Suite 301
City San Bernardino **State** CA **Zip** 92401

Project Location

County San Bernardino
City San Bernardino
Region
Lat / Long
Cross Streets Multiple
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways I-10, I-215
Airports San Bernardino International Air
Railways Metrolink, Amtrak
Waterways
Schools
Land Use Multiple General Plan and Zoning Deisgnations

Project Issues Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Cumulative Effects; Flood Plain/Flooding; Geologic/Seismic; Landuse; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply; Aesthetic/Visual

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Reviewing Agencies Resources Agency; Department of Fish and Game, Region 6; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 8; Department of Housing and Community Development; Regional Water Quality Control Board, Region 8; Department of Toxic Substances Control; Native American Heritage Commission; Public Utilities Commission

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Date Received 06/02/2010 **Start of Review** 06/02/2010 **End of Review** 07/16/2010

Note: Blanks in data fields result from insufficient information provided by lead agency.

E. RESPONSES TO COMMENTS FROM SCOTT MORGAN, ACTING DIRECTOR, STATE CLEARINGHOUSE, STATE OF CALIFORNIA, GOVERNOR'S OFFICE OF PLANNING AND RESEARCH, DATED JULY 19, 2010.

E1. The comment letter acknowledges receipt of the Draft EIR and notes that copies of the Draft EIR were submitted to selected State agencies; and that no comments were received from the State agencies. The comment letter also notes that the project has complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to CEQA. Comment acknowledged and no revisions to the Draft EIR are necessary.

13.6 ERRATA FOR FINAL EIR

The Final EIR will be a revised document that incorporates all of the changes made to the Draft EIR following the public review period.

1. Mitigation Measure GEO-1 on pages 1-26 and 5.9-24 of the Draft EIR will be revised as follows in the Final EIR:

GEO-1 Prior to issuance of a Grading Permit for each development project, a ~~registered geologist or soils engineer~~ geotechnical engineer shall prepare an area-specific Geologic ~~Study~~ Report, which shall be submitted to the Community Development/Redevelopment Department (Building and Safety) for approval. The Geologic ~~Study~~ Report shall specify the measures necessary to mitigate impacts related to liquefaction, expansion, and other geologic and seismic hazards, if any. All recommendations in the Geologic ~~Study~~ Report shall be implemented during area preparation, grading, and construction.

2. Mitigation Measure GEO-2 on pages 1-27 and 5.9-24 of the Draft EIR will be revised as follows in the Final EIR:

GEO-2 Prior to issuance of any Grading Permit, applicants of development projects shall comply with each of the recommendations detailed in the Geotechnical ~~Study~~ Report, and other such measure(s) as the City deems necessary to adequately mitigate potential seismic and geotechnical hazards.

3. Mitigation Measure GEO-3 on pages 1-27 and 5.9-24 of the Draft EIR will be revised as follows in the Final EIR:

GEO-3 All grading, landform modifications, and construction shall be in conformance with Title 15, Division 1 of the San Bernardino Municipal Code~~state-of-the-practice design and construction parameters~~. Typical standard minimum guidelines regarding regulations to control excavations, grading, earthwork construction, including fills and embankments and provisions for approval of plans and inspection of grading construction are set from the latest version of the California Building Code. Compliance with these standards shall be evident on grading and structural plans. This measure will be monitored by the City Building and Safety Department through periodic site inspections.

4. The Water Demand section on page 5.16-4 of the Draft EIR will be revised as follows in the Final EIR:

Water Demand

In year 2005, the City's water demand was approximately 330 gallons of water per person per day (120, 450 gallons per person per year). The Citywide total demand was approximately 61,182,330 gallons ~~per person~~ per day or 22,331,550,450 gallons per year (68,533 acre-feet per year).

5. The text on page 1-37 in Section 1.5, Summary of Environmental Impacts and Mitigation Measures, of the Draft EIR will be revised as follows in the Final EIR:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
WATER			
Implementation of the proposed project could result in increased demand for water supplies and infrastructure within the City.	~~Less Than Significant Impact.~~ Potentially Significant Impact.	~~No mitigation measures beyond the goals and policies identified in the General Plan are required.~~ WAT-1 Prior to the issuance of a building permit for any future development project, the project applicant shall submit a hydraulic analysis to the San Bernardino Municipal Water Department to determine if water infrastructure upgrades (i.e., pipeline diameter increases for fire flow) are necessary. If the hydraulic analysis determines that upgrades are necessary, the project applicant shall be responsible for their fair-share of the improvements.	~~Not Applicable.~~ Less Than Significant Impact.

6. The text on page 5.16-8 of the Draft EIR will be revised as follows in the Final EIR:

5.16.4 PROJECT IMPACTS AND MITIGATION MEASURES

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN INCREASED DEMAND FOR WATER SUPPLIES AND INFRASTRUCTURE WITHIN THE CITY.**

Level of Significance Before Mitigation: ~~Less Than Significant Impact~~ Potentially Significant Impact.

7. The text on page 5.16-13 of the Draft EIR will be revised as follows in the Final EIR:

Mitigation Measures: ~~No mitigation measures beyond the goals and policies identified in the General Plan are required.~~

WAT-1 Prior to the issuance of a building permit for any future development project, the project applicant shall submit a hydraulic analysis to the San Bernardino Municipal Water Department to determine if water infrastructure upgrades (i.e., pipeline diameter increases for fire flow) are necessary. If the hydraulic analysis determines that upgrades are necessary, the project applicant shall be responsible for their fair-share of the improvements.

Level of Significance After Mitigation: ~~Not Applicable.~~ Less Than Significant Impact.

8. Mitigation Measure WW-3 on pages 1-38 and 5.17-10 of the Draft EIR will be revised as follows in the Final EIR:

WW-3 Prior to issuance of a building permit for any future development project, the project applicant shall provide evidence that the City and the City of San Bernardino Municipal Water Department has sufficient wastewater transmission and treatment plant capacity to accept sewage flows from buildings for which building permits are being requested.

9. The text on pages 1-3 and 3-15 of the Draft EIR will be revised as follows in the Final EIR:

AMENDMENT TO EXTEND THE EFFECTIVENESS AND TERM TO RECEIVE TAX INCREMENT BY 10 YEARS

The Agency wishes to pursue the extension of the effectiveness of the Central City North and Meadowbrook/Central City Project Areas. These Project Areas will reach their effectiveness time limit in the near future. Once the effectiveness limit is reached, implementation activities (except for inclusionary housing) within the Project Areas must cease and funds can only be spent on administering debt associated with the Project Areas. Therefore, the Agency wishes to pursue the 10-year amendment to extend the effectiveness and time period to receive tax increment for these two Project Areas. This amendment will further the Agency's ability to financially support needed redevelopment projects and programs in Merged Area A.

The City's existing Housing Element (adopted July 2003) is currently being updated. A draft of the updated Housing Element has been submitted to the Department of Housing and Community Development (HCD) for their mandatory review for compliance with State law. Following HCD review and any updates to the draft Housing Element, the City will hold public hearings to adopt the Housing Element.

As such, the 10-year amendments as previously identified for the Central City North and Meadowbrook/Central City Project Areas will not be undertaken at this time, but would be subject to a subsequent amendment after the Housing Element is adopted by the City and certified by HCD.

APPENDIX A

INITIAL STUDY CHECKLIST/NOTICE OF PREPARATION

NOTICE OF PREPARATION

To: Interested Agencies and Organizations
(Refer to Attached Distribution List)

Subject: Notice of Preparation of a Draft Environmental Impact Report

Lead Agency:

Agency Name: Redevelopment Agency
City of San Bernardino
201 North "E" Street, Suite 301
City/State/Zip: San Bernardino, CA 92401
Contact: Mr. Jeffrey Smith, AICP
Phone: 909.663.1044

Consulting Firm:

Firm Name: RBF Consulting
Street Address: 14725 Alton Parkway
City/State/Zip: Irvine, California 92618
Contact: Ms. Collette L. Morse, AICP
Phone: 949.472.3505

The **REDEVELOPMENT AGENCY, CITY OF SAN BERNARDINO** will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. A copy of the Initial Study Checklist: (☑ is ☐ is not) attached. In addition, the Initial Study Checklist is available at the following locations:

City of San Bernardino
Economic Development Agency
201 North E Street, Suite, 301
San Bernardino, CA 92401

City of San Bernardino
Development Services Department - Planning
300 North D Street, 3rd Floor
San Bernardino, CA 92418

Norman F. Feldheym
Central Library
555 West 6th Street
San Bernardino, CA 92410

Redevelopment Agency
City of San Bernardino
www.sbrda.org

A Public Scoping Meeting will be held in connection for the Preparation of an Environmental Impact Report for the project identified below:

WHAT: San Bernardino Redevelopment Project Area Merger – Area A

WHERE: City of San Bernardino
Economic Development Agency
Board Room
201 North E Street, Suite 301
San Bernardino, CA 92401

WHEN: Wednesday, December 9, 2009 – 6:30 pm – 8:00 pm

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but ***not later than 30 days*** after receipt of this notice **(comment period ends December 23, 2009).**

Please send your response to **Jeffrey Smith, AICP, Senior Urban Planner** at the address shown above. We will need the name for a contact person in your agency.

Project Title: San Bernardino Redevelopment Project Area Merger – Area A

Project Location: City of San Bernardino — San Bernardino

City (nearest) — County

Project Description: (brief)

The proposed project is located in the eastern portion of the City of San Bernardino. The proposed project involves various redevelopment plan amendments and the merger of seven of the Agency's Redevelopment Project Areas. The Redevelopment Project Areas are currently surrounded by developed properties and have been deemed redevelopment areas based on their underutilization. Currently, the seven Redevelopment Project Areas consist of many land uses, not all of which are being utilized to their highest and best use, but improving with the implementation of redevelopment projects.

Date: November 23, 2009

Signature: Jeffrey M. Smith

Jeffrey Smith, AICP

Title: Senior Urban Planner

Telephone: 909.663.1044

San Bernardino Redevelopment Project Area Merger - Area A
NOP/Initial Study NOP Mailing List

Agency Type	Agency Name	Address	City	State	Zip
1	Army Corps of Engineers Los Angeles District Office Planning Div.	915 Wilshire Blvd., Suite 980	Los Angeles	CA	90017
1	U.S. Fish and Wildlife service	2800 Cottage Way Room W 2605	Sacramento	CA	95825
1	U.S.EPA Region 9	75 Hawthorne Street	San Francisco	CA	94105
2	California Air Resources Board	1001 I Street PO Box 2815	Sacramento	CA	95812
2	California Department of Fish and Game	4949 Viewridge Ave.	San Diego	CA	92123
2	California Department of Fish and Game Environmental Services	330 Golden Shore	Long Beach	CA	90802
2	California Environmental Protection Agency	1001 I Street	Sacramento	CA	95812
2	California Geologic Survey	801 K Street MS 12-30	Sacramento	CA	95814
2	Department of Housing & Urban Development	3 Hutton Center Dr.	Santa Ana	CA	92707
2	Department of Toxic Substance Control	400 P Street 4th Floor	Sacramento	CA	95814
2	Department of Transportation District 8	464 W. Fourth St MS 726	San Bernardino	CA	92401
2	State Clearinghouse	1400 10th Street Room 121	Sacramento	CA	95814
2	State Water Resources Control Board	1000 I Street	Sacramento	CA	95814
3	City of Colton	650 N. Cadena Drive	Colton	CA	92324
3	City of Highland	27215 Base Line	Highland	CA	92346
3	City of Loma Linda	25541 Barton Road	Loma Linda	CA	92354
3	City of Redlands	35 Cajon Street	Redlands	CA	92373
3	City of Rialto	150 S. Palm Ave	Rialto	CA	92376
3	City of San Bernardino	300 North D Street	San Bernardino	CA	92410
3	City of San Bernardino Dept. of Parks and Recreation	300 North D Street	San Bernardino	CA	92410
3	City of San Bernardino Fire Dept. Fire Prevention Division	200 E. Third Street	San Bernardino	CA	92410
3	City of San Bernardino Municipal Water Department	300 N "D" Street	San Bernardino	CA	92401
3	City of San Bernardino Police Department	710 N. D Street	San Bernardino	CA	92401
3	Clerk of the Board of Supervisors, County of San Bernardino	385 North Arrowhead 2nd. Floor	San Bernardino	CA	92415
3	County of San Bernardino Department of Public Works	825 E. Third Street	San Bernardino	CA	92415
3	County of San Bernardino Land Use Services	385 N. Arrowhead Ave. First Floor	San Bernardino	CA	92415
3	County of San Bernardino Transportation/Flood Control	825 E. Third Street	San Bernardino	CA	92415
3	San Bernardino County Museum, Archaeological Information Center	2024 Orange Tree Lane	Redlands	CA	92374
3	Esther R. Estrada, 1st Ward San Bernardino City Council	300 N. D Street Mezzanine	San Bernardino	CA	92418
3	OmniTrans	1700 West Fifth Street	San Bernardino	CA	92411
3	Redlands Unified School District	20 W. Lugonia Ave.	Redlands	CA	92374
3	Regional Water Quality Control Board (Santa Ana Region)	3737 Main Street Suite 500	Riverside	CA	92507
3	San Bernardino Associated Governments	1170 W. 3rd Street, 2nd Floor	San Bernardino	CA	92410
3	San Bernardino City Unified School Dist.	777 North F Street	San Bernardino	CA	92410
3	San Bernardino Int. Airport Inland Valley Development Agency	294 S. Leland Norton Way, Suite 1	San Bernardino	CA	92408
3	San Bernardino Public Library	555 W. Sixth Street	San Bernardino	CA	92410
3	San Bernardino Valley College	701 S. Mount Vernon Ave.	San Bernardino	CA	92410
3	San Bernardino Valley Municipal Water District	380 E. Vanderbilt Way	San Bernardino	CA	92408
3	San Bernardino Water Conservation District	1630 W. Redlands Blvd.	Redlands	CA	92373
3	Santa Ana Watershed Project Authority	11615 Sterling Ave.	Riverside	CA	92503
3	South Coast Air Quality Mgmt. Dist.	21865 E. Copley Dr.	Diamond Bar	CA	91765
3	Southern California Association of Governments	818 West Seventh St., 12th Floor	Los Angeles	CA	90017
3	Tobin Brinker, 3rd Ward San Bernardino City Council	300 N. D Street Mezzanine	San Bernardino	CA	92418
4	Cal Disposal	26009 6th Street	San Bernardino	CA	92410
4	Chamber of Commerce	546 W. 6th Street	San Bernardino	CA	92410
4	CSU, San Bernardino College of Social & Bevhavioral Sciences	5500 University Parkway	San Bernardino	CA	92407
4	Curran's Rubbish Disposal	5455 Industrial Parkway	San Bernardino	CA	92407
4	Edison International	1351 East Francis	Ontario	CA	91764
4	San Manuel Band of Serrano Mission Indians	26569 Community Center Drive	Highland	CA	92346
4	Southern California Edison	287 Tennessee St.	Redlands	CA	92374
4	Southern California Gas Company	1981 W. Lugonia Ave.	Redlands	CA	92374
4	The Press-Enterprise	1650 South "E" Street	San Bernardino	CA	92408
4	The San Bernardino County Sun	399 North "D" Street	San Bernardino	CA	92401
4	Verizon	3633 E. Inland Empire Blvd. Suite 600	Ontario	CA	91764

1 Federal Agency
2 State Agency
3 Local Agency
4 Local Stakeholder

CITY OF SAN BERNARDINO
INITIAL STUDY FOR
SAN BERNARDINO REDEVELOPMENT PROJECT AREA MERGER – AREA A

PROJECT LOCATION: The seven project areas are generally located along the east side of Interstate 215 (I-215) from 8th Street to the Interstate 10 (I-10) interchange, and also along I-10 from the I-215 interchange to Mountain View Avenue. A portion of the Southeast Industrial Park Project Area is located west of the I-215 and the South Valle Project Area is located south of I-10. In addition, a portion of the Tri-City Project Area is located along Del Rosa Drive between Baseline and 6th Street.

PROJECT DESCRIPTION: The City of San Bernardino Economic Development Agency ("Agency") is proposing various redevelopment plan amendments and the merger of seven of the Agency's Redevelopment Project Areas. The Project Areas under consideration include Central City North, Southeast Industrial Park, Tri-City, South Valle, Meadowbrook/Central City, Central City East, and Central City South ("Project Areas"). The Agency is proposing a Merged, Amended, and Restated Redevelopment Plan for the Project Areas.

DATE: November 11, 2009

PREPARED FOR:

City of San Bernardino
Economic Development Agency
201 North "E" Street, Suite 301
San Bernardino, CA 92401
Contact: **Mr. Jeffrey Smith, AICP**
909.663.1044

PREPARED BY:

RBF CONSULTING
14725 Alton Parkway
Irvine, California 92618
Contact: **Ms. Collette L. Morse, AICP**
949.472.3505

REVIEWED BY:

Independently reviewed, analyzed, and exercised judgment in making the determination, by the Development/Environmental Review Committee on November 19, 2009, pursuant to Section 21082 of the California Environmental Quality Act (CEQA).

The California Environmental Quality Act (CEQA) requires the preparation of an Initial Study when a proposal must obtain discretionary approval from a governmental agency and is not exempt from CEQA. The purpose of the Initial Study is to determine whether or not a proposal, not exempt from CEQA, qualifies for a Negative Declaration or whether or not an Environmental Impact Report (EIR) must be prepared.

1. **Project Title:** San Bernardino Redevelopment Project Area Merger – Area A

2. **Lead Agency Name:** City of San Bernardino
   Address: Economic Development Agency
   201 North "E" Street, Suite 301
   San Bernardino, CA 92401

3. **Contact Person:** Jeffrey Smith, AICP, Senior Urban Planner
   Phone Number: (909) 663-1044

4. Project Location (Address/Nearest cross-streets): The seven project areas are generally located along the east side of Interstate 215 (I-215) from 8th Street to the Interstate 10 (I-10) interchange, and also along I-10 from the I-215 interchange to Mountain View Avenue. A portion of the Southeast Industrial Park Project Area is located west of the I-215 and the South Valle Project Area is located south of I-10. In addition a portion of the Tri-City Project Area is located along Del Rosa Drive between Baseline and 6th Street (refer to *Exhibit 1*, *Regional Location Map,* and *Exhibit 2*, *Redevelopment Project Areas*).

5. **Project Sponsor:** City of San Bernardino
   Address: Economic Development Agency
   201 North "E" Street, Suite 301
   San Bernardino, CA 92401

6. **General Plan Designation:**

General Plan designations within the project areas include:

- Residential (single/ multi-family);
- Commercial (general, regional, heavy, office);
- Industrial;
- Open Space; and
- Public Facility/ Quasi-Public Facility.

7. Description of Project (Describe the whole action involved, including, but not limited to, later phases of the project and any secondary, support, or off-site feature necessary for its implementation. Attach additional sheets, if necessary):

BACKGROUND

The City of San Bernardino Economic Development Agency was formed to assist the City in the elimination of physical and social blight, as well as the creation of jobs, construction of affordable housing, and attraction of new businesses into the region. The first of the redevelopment project areas within this part of the City was adopted in 1958. Since then, many of the redevelopment project areas have been amended to adapt to the changing needs of the City.

PROJECT LOCATION & SETTING

The proposed project is located in the eastern portion of the City of San Bernardino; refer to *Exhibit 1*, *Regional Location Map*. The proposed project involves various redevelopment plan amendments and the merger of seven of the Agency's Redevelopment Project Areas. The Redevelopment Project Areas are currently surrounded by developed properties and have been deemed redevelopment areas based on their underutilization. Currently, the seven Redevelopment Project Areas consist of many land uses, not all of which are being utilized to their highest and best use, but improving with the implementation of redevelopment projects.

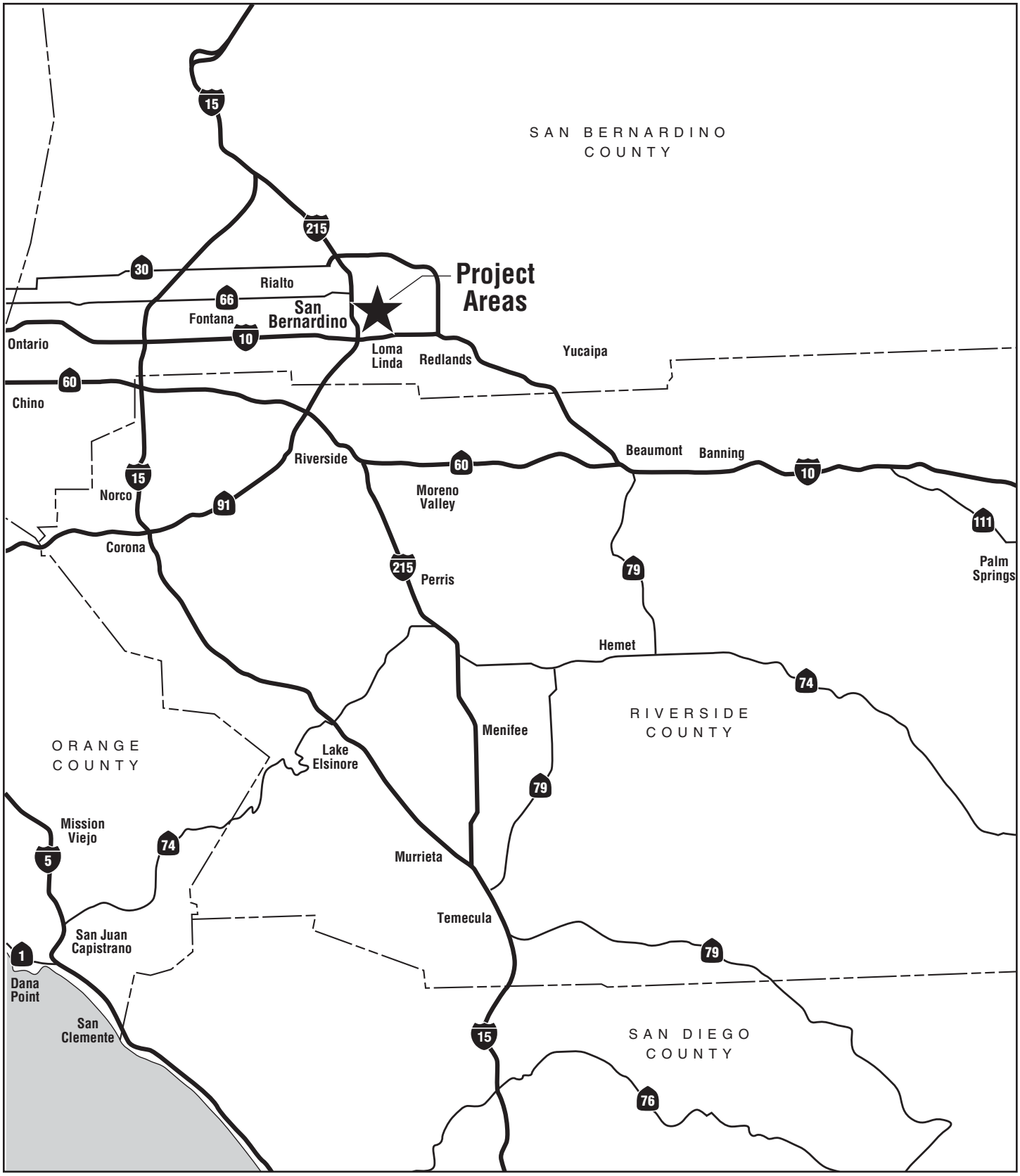
Central City North

Central City North (adopted August 6, 1973) is a mixture of retail, commercial, restaurants, professional service uses, and single-family residences. This area is located east of the I-215 freeway near the San Bernardino Civic Center. Since its adoption, various developments have occurred within this area (i.e., senior housing facilities, main library branch, Stater Brothers Supermarket, and Social Security offices).

In addition, administrative offices for the City Unified School District, County Superintendent of Schools and Community College District, and renovation of the 80-year old California Theater, has recently been completed. Additionally, the Central Police Facility and office tower and parking garage for the State Department of Transportation (CalTrans) was recently completed in the Central City North project area.

Southeast Industrial Park

Southeast Industrial Park (adopted June 21, 1976) is located in the southeast quadrant of the City, and is divided into two sections: the western area devoted primarily to commercial complexes and professional offices, and the eastern area zoned for light industrial.



INITIAL STUDY
SAN BERNARDINO REDEVELOPMENT PROJECT AREA MERGER - AREA A

Regional Location Map

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Exhibit 1

The 520-acre western Commercenter section, which is adjacent to the I-10 and I-215 freeway interchange, offers a mix of professional office complexes, a restaurant row, a hotel with convention facilities, and various motels, retail, commercial, and light industrial uses. West of the I-215 Freeway is the San Bernardino Auto Plaza and various auto-related businesses.

The 350-acre eastern industrial section is occupied by manufacturing- and distribution-related warehouse uses as well as vacant land available for development. This area is proximately located to the San Bernardino International Airport (formerly Norton Air Force Base). In addition, a portion of the land within this area is retained for flood control purposes adjacent to the Santa Ana River, which bisects a portion of this redevelopment project area.

Tri-City
The Tri-City Plan (adopted June 20, 1983) is located in the southeast section of San Bernardino. This project area is divided into two subareas: Subarea I and Subarea II.

Subarea I consists of 95 acres located west of Del Rosa Avenue and north of Sixth Street to Baseline, and is zoned for residential development. Apartment units occupy a 12-acre site, with the remainder of the land owned by the San Bernardino City Unified School District.

Subarea II consists of 283 acres and is located east of Waterman Avenue, west of Tippecanoe Avenue, and north of the I-10 freeway. This area is occupied by the Tri-City Corporate Center, which is a mix of office, light industrial, retail, commercial, and a variety of restaurant uses.

South Valle
The South Valle redevelopment project area (adopted July 9, 1984) is located south of the I-10 freeway within the southern portion of the City. It is adjacent to the Commercenter area of the Southeast Industrial Park and Subarea II of the Tri-City redevelopment project areas.

This redevelopment project area is characterized by a mixture of commercial, industrial, and residential developments adjacent to the I-10 and I-215 freeway interchange.

Central City/ Meadowbrook, Central City East, Central City South
Central City/ Meadowbrook – Adopted September 21, 1958
Central East – Adopted May 3, 1976
Central City South – Adopted May 3, 1976

These three redevelopment project areas were merged in 1983, creating a total project area of 1,008 acres. Developments located within this area include various administrative offices for federal, state, county, and city departments; the 55-acre Seccombe Lake State Urban Park; and the 136-acre National Orange Show fairgrounds. In addition, this area includes the Court Street Square, which provides a site for public-oriented activities, the San Bernardino Stadium (home to the Inland Empire 66ers minor league baseball team), and the Carousel Mall.

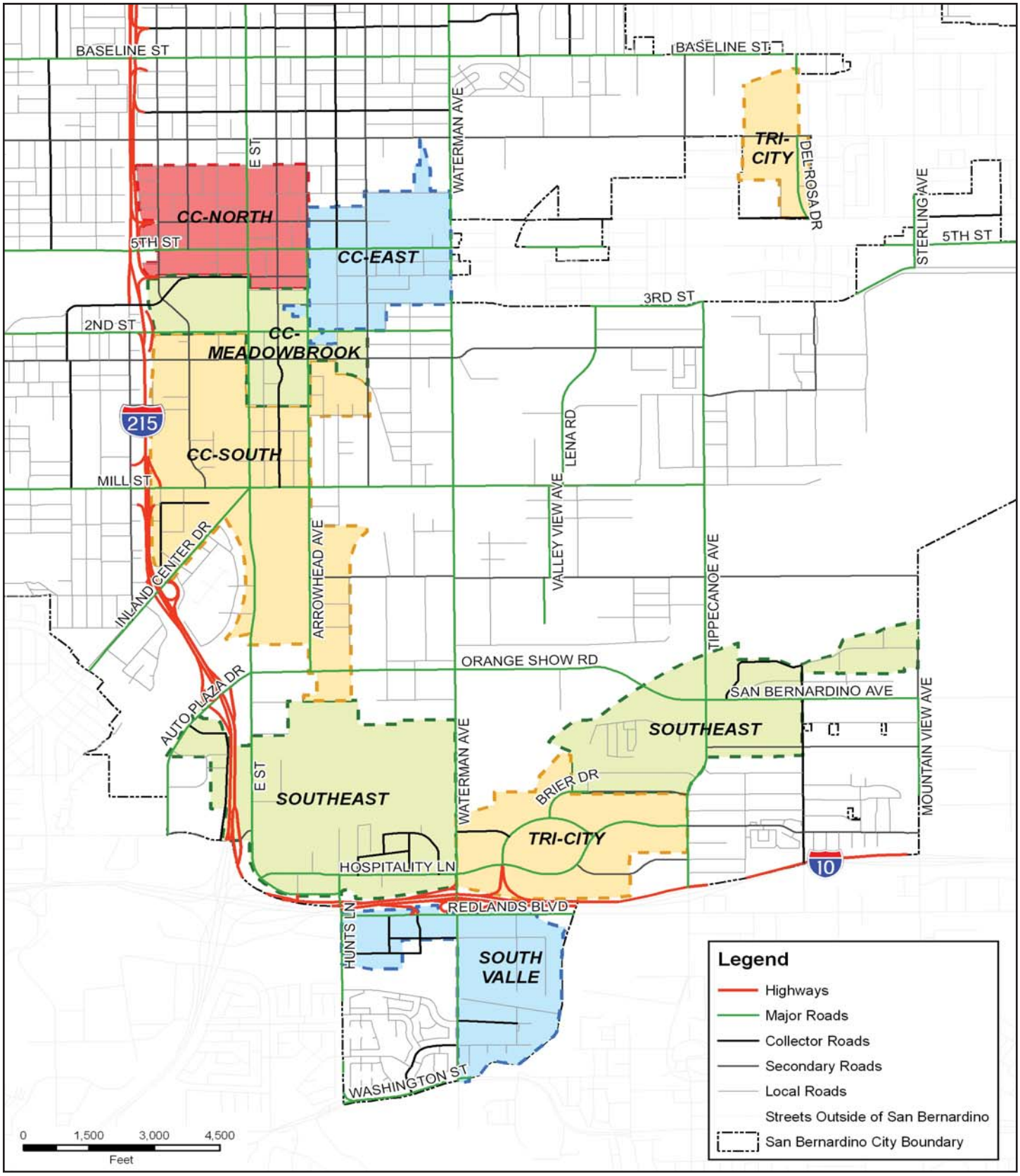
PROJECT CHARACTERISTICS

The San Bernardino Redevelopment Project Area Merger – Area A Project is proposed by the San Bernardino Economic Development Agency to merge the seven project areas, which encompass a total of 2,823 acres, to remove barriers for funding new redevelopment projects with tax increment financing from other project areas within the City, as described below. Refer to *Exhibit 2*, *Redevelopment Plan Project Areas*, for boundaries of the seven project areas.

Redevelopment Project Area	Acreage
Central City North	278
Southeast Industrial Park	870
Tri-City	378
South Valle	289
Meadowbrook / Central City Projects	590
Central City East	225
Central City South	193
Total	2,823

As part of this proposal, the following actions will be undertaken within each of the Redevelopment Planning Areas:

1. **Amend the Central City North Redevelopment Plan** to increase the Tax Increment and Bond Cap; and a 10-year extension to the expiration date of the Project Area.
2. **Amend the Southeast Industrial Park Redevelopment Plan** to increase the Tax Increment and Bond Cap.
3. **Amend the Tri-City Redevelopment Plan** to increase the Tax Increment and Bond Cap.
4. **Amend the Meadowbrook/Central City Redevelopment Plan** to increase the Tax Increment and Bond Cap; and a 10-year extension to the expiration date of the Project Area.
5. **Amend the Central City East Redevelopment Plan** to increase the Tax Increment and Bond Cap.
6. **Amend the Central City South Redevelopment Plan** to increase the Tax Increment and Bond Cap.
7. **Amend the South Valle Redevelopment Plan** to increase the Tax Increment and Bond Cap.



INITIAL STUDY
SAN BERNARDINO REDEVELOPMENT PROJECT AREA MERGER - AREA A

Redevelopment Project Areas

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Exhibit 2

8. **Merger of the Central City North, Southeast Industrial Park, Tri-City, South Valle, Meadowbrook/Central City, Central City East and Central City South Redevelopment Project Areas** for financial purposes and to produce a merged, amended, and restated redevelopment plan to include capital improvement projects and related redevelopment planned for the project areas. For example, major transit improvements are planned by other agencies through several of the project areas, including a multi-modal transit center, a bus rapid transit project with dedicated bus lanes and transit stations, and light rail services. In addition to the downtown transit center and new transit services, substantial new government offices and court facilities are planned in the downtown core area, which prompted the City to conduct a visioning process and to adopt the Downtown Core Vision and Action Plan. To implement the Downtown Core Vision and Action Plan and to take full advantage of planned transit amenities, the restated and merged redevelopment plan will be coordinated with an update of the City's Main Street Overlay District and the proposal of a new Transit Oriented Development (TOD) Overlay District.

Table 1, *Proposed Merger/Amendments for City of San Bernardino Redevelopment Project Areas*, shows the elements of the proposed project.

Table 1
Proposed Merger/Amendments for San Bernardino Redevelopment Project Area Merger – Area A

	Type of Redevelopment Plan				
PROJECT AREA	**Merge Project Areas**	**Tax Increment & Bond Cap**	**Capital Projects**	**10 Year Extension**	**Single-Merged, Amended, and Restated Plan**
Central City North	✓	✓	✓	✓	✓
Southeast Industrial Park	✓	✓	✓		✓
Tri-City	✓	✓	✓		✓
South Valle	✓	✓	✓		✓
Meadowbrook/Central City	✓	✓	✓	✓	✓
Central City East	✓	✓	✓		✓
Central City South	✓	✓	✓		✓

8. Surrounding Land Uses and Setting:

Table 2, Surrounding Land Uses for City of San Bernardino Redevelopment Project Areas, describes the surrounding uses within the project areas.

Table 2
Surrounding Land Uses for San Bernardino Redevelopment Project Area Merger – Area A

PROJECT AREA	Single-Family Residential	Multi-Family Residential	Industrial	Commercial	Open Space/ Public Facility	Vacant Land
Central City North	✓	✓		✓	✓	✓
Southeast Industrial Park	✓		✓	✓	✓	✓
Tri-City	✓	✓	✓	✓	✓	✓
South Valle	✓	✓	✓	✓	✓	✓
Meadowbrook/Central City	✓	✓	✓	✓	✓	✓
Central City East	✓	✓	✓	✓	✓	✓
Central City South	✓	✓	✓	✓	✓	✓

9. Other agencies whose approval is required (e.g., permits, finance approval, or participation agreement):

Not Applicable.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages.

☑	Aesthetics	☐	Agriculture Resources	☑	Air Quality & Global Climate Change
☑	Biological Resources	☑	Cultural Resources	☑	Geology /Soils
☑	Hazards & Hazardous Materials	☑	Hydrology / Water Quality	☑	Land Use / Planning
☐	Mineral Resources	☑	Noise	☑	Population / Housing
☑	Public Services	☑	Recreation	☑	Transportation/Traffic
☑	Utilities / Service Systems	☑	Mandatory Findings of Significance		

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.

☑ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a significant effect(s) on the environment, but at lease one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project.

Signature: _____ Date: _____
Printed Name: Mr. Jeffrey Smith, AICP, Senior Urban Planner
For: City of San Bernardino, Economic Development Agency

EVALUATION OF ENVIRONMENTAL IMPACTS

This section analyzes the potential environmental impacts associated with the proposed project. The issue areas evaluated in this Initial Study include:

- Aesthetics
- Agriculture Resources
- Air Quality and Global Warming
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the City's *CEQA Guidelines* and used by the City in its environmental review process. For the preliminary environmental assessment undertaken as part of this Initial Study's preparation, a determination that there is a potential for significant effects indicates the need to more fully analyze the development's impacts and to identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the proposed project. To each question, the following are the four possible responses:

- **No Impact.** The project will not have any measurable environmental impact on the environment.

- **Less Than Significant Impact.** The project will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.

- **Less Than Significant Impact With Mitigation Incorporated.** The project will have the potential to generate impacts which may be considered as a significant effect on

the environment, although mitigation measures or changes to the project's physical or operational characteristics can reduce these impacts to levels that are less than significant.

- **Potentially Significant Impact**. The project will have impacts that are considered significant.

Where potential impacts are anticipated to be significant, mitigation measures will be required, so that impacts may be avoided or reduced to insignificant levels.

This section analyzes the potential environmental impacts that may result from the proposed project. For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and answers are provided according to the analysis undertaken as part of the Initial Study. The analysis considers the proposed project's short-term impacts (construction-related), and long-term impacts (operational-related).

I. AESTHETICS

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the Project:				
a) Have a substantial adverse effect on a scenic vista as identified in the City's General Plan?	☐	☐	☑	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☑
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☑	☐	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☑	☐	☐	☐

Discussion:

a) Have a substantial adverse effect on a scenic vista as identified in the City's General Plan?

Less Than Significant Impact. Chapter 12, Natural Resources and Conservation of the San Bernardino General Plan, identifies goals and policies to maintain, improve, or preserve the quality and supply of natural resources and natural features throughout the City. Areas identified that could benefit from sensitive treatment of the land include: Kendall Hills, San Bernardino Mountains, the hillsides adjacent to Arrowhead Springs, Lytle Creek wash, the Santa Ana River, Badger Canyon, Bailey Canyon, and Waterman Canyon. The proposed project includes areas within the vicinity of the Santa Ana River, which is a well-defined riparian corridor within this part of the City. As proposed, the project would amend and merge seven of the City's redevelopment areas into one area. As part of this amendment and merger, direct adverse effects would not occur on the Santa Ana River. All subsequent development within the project area would be required to comply with the goals and policies outlined in Chapter 12 of the General Plan. Through compliance, future indirect impacts to scenic vistas throughout

the project area would be minimized and/or avoided. Less than significant impacts would occur and further analysis in the EIR is not required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. Implementation of the proposed project would have no impact on a state scenic highway. Figure C-1 of the General Plan identifies state scenic highways within the City. The nearest designated scenic highway is Interstate 10 east of State Route 30, and State Route 30. The project areas are not located near either of the designated scenic highways; therefore, scenic resources would not be impacted by the proposed project. No impacts would occur and further analysis in the EIR is not required.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Potentially Significant Impact. The proposed project may alter the character of the project area. Future development/improvements in the project area may create temporary aesthetic impacts associated with construction activities. Exposed surfaces, construction debris, equipment, and truck traffic may temporarily impact views adjacent to development sites. In addition, long-term visual character/quality conflicts may occur due to new development on previously vacant parcels (potentially obstructing views) and new development conflicting with existing developments on adjacent/surrounding properties. This impact is considered potentially significant and will be further evaluated in the EIR.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Potentially Significant Impact. The proposed project is predominantly characterized as urbanized land that contains various forms of on-site and off-site lighting. As part of the proposed project, lighting would be included for activity areas involving nighttime uses, parking, security lighting around structures, and interiors of buildings. Project implementation could result in development at a greater intensity/activity level than currently exists. Development of the proposed uses would introduce new sources of light and glare, potentially affecting views in the area. Therefore, this issue will be analyzed in more detail in the EIR to determine the significance of potential impacts.

II. AGRICULTURE RESOURCES

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the Project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☑

Discussion:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. According to the State of California, Department of Conservation Farmland Mapping and Monitoring Program[1], the project area does not include land identified as prime farmland, unique farmland, or farmland of statewide importance. Therefore, impacts associated with conversion of these lands would not occur as a result of the proposed project. No impacts would occur and further analysis in the EIR is not required.

[1] http://www.conservation.ca.gov/DLRP/fmmp/Pages/Index.aspx

III. AIR QUALITY AND GLOBAL CLIMATE CHANGE

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:				
a) Conflict with or obstruct implementation of the applicable air quality plan (South Coast Air Basin)?	☐	☐	☑	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation based on the thresholds in the SCAQMD's "CEQA Air Quality Handbook"?	☑	☐	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☑	☐	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☑	☐	☐	☐
e) Create objectionable odors affecting a substantial number of people based on the information contained in the Project Description Form?	☐	☐	☑	☐

Discussion:

a) Conflict with or obstruct implementation of the applicable air quality plan (South Coast Air Basin)?

Less Than Significant Impact. The South Coast Air Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area in Riverside County. The distinctive climate of the Basin is designated as nonattainment for ozone (O_3) and particulate matter (PM_{10}) under both federal and state standards, and nonattainment for $PM_{2.5}$ Federal standards.

According to the SCAQMD's Air Quality Analysis Guidance Handbook (SCAQMD, updated October 2003), the purpose of the consistency finding is to determine if a project is inconsistent with the assumptions and objectives of the regional air quality plans, and thus if it would interfere with the region's ability to comply with federal and state Ambient Air Quality Standards (AAQS). Growth assumptions with the Air Quality Management Plan (AQMP) are based on growth assumptions and land use designations included within local general plans. The proposed project includes the consolidation of seven redevelopment project areas into one area, and would not modify existing land use designations in the City's General Plan. Therefore, the proposed project would not result in a conflict with the SCAQMD. As a result, less than significant impacts would occur and further analysis in the EIR regarding this topic is not required.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation based on the thresholds in the SCAQMD "CEQA Air Quality Handbook"?

Potentially Significant Impact. The proposed project includes the consolidation of seven redevelopment project areas into one area, and no development is proposed with the plan amendment and merger. However, development associated with implementation of the proposed project has the potential to generate construction- or operation-related impacts that could violate an air quality standard or threshold identified in the SCAQMD CEQA Air Quality Handbook.

The proposed project's potential air quality impacts on a local and regional level require an evaluation pursuant to the South Coast Air Quality Management District and California Air Resources Board requirements and methodology. Additional analysis in the EIR is necessary to quantify potential project-related air quality impacts (both short-term and long-term) and identify appropriate mitigation that would be effective in reducing pollutant emissions.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Potentially Significant Impact. Refer to Response II(b). Further analysis is required in the EIR.

d) Expose sensitive receptors to substantial pollutant concentrations?

Potentially Significant Impact. Sensitive receptors (i.e., children, senior citizens, and acutely or chronically ill people) are more susceptible to the effects of air pollution than the general population. Land uses that are considered sensitive receptors typically include residences, schools, playgrounds, childcare centers, hospitals, convalescent homes, and retirement homes. The project areas include some of the aforementioned sensitive receptors. The project areas and immediate surrounding areas include all levels of schools (Curtis Middle School, Juanita B. Jones Elementary, Head Start, H Street, and Civic Circle Preschool, as well as numerous Colleges). The proposed project includes the consolidation of seven redevelopment project areas into one area, and no development is proposed with the plan amendment and merger. However, development associated with implementation of the proposed project has the potential to generate construction- or operation-related impacts that could increase vehicle trips on area roadways and result in associated air pollutants. Grading and excavation operations may also have air quality impacts in the absence of mitigation. These impacts require additional analysis in the EIR to assess their level of significance.

e) Create objectionable odors affecting a substantial number of people based on the information contained in the Project Description Form?

Less Than Significant Impact. The proposed project would not directly create objectionable odors. However, construction activities from future development projects within these areas may generate detectable odors from heavy-duty equipment exhaust. In this case, odors associated with diesel and gasoline fumes would occur during construction and may affect people in the vicinity of the project areas. The project areas include schools and other sensitive receptors. Future development within the project areas would be subject to environmental analysis under CEQA on a project-by-project basis. Therefore, less than significant impacts would occur and further analysis in the EIR is not required.

IV. BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the Project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☑	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☑	☐	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☑	☐	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☑	☐	☐	☐

IV. BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
e) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☑	☐

Discussion:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Potentially Significant Impact. Existing data indicates that the redevelopment project areas are already highly disturbed with a few minor exceptions, primarily along the Santa Ana River Channel, which is an active riparian corridor. This area may contain special status species such as the San Bernardino kangaroo rat, Delhi sands giant flower-loving fly, least Bell's vireo, burrowing owl, and the Santa Ana River Woolly Star. A biological resource constraints analysis will be prepared and incorporated into the analysis provided in the EIR. This impact is considered potentially significant and will be evaluated in the EIR.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Potentially Significant Impact. The proposed project may potentially affect the existing habitat within and adjacent to the Santa Ana River. Additional discussion is provided in Response IV(a). This impact is considered potentially significant and will be evaluated in the EIR.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Potentially Significant Impact. The proposed project includes the consolidation of seven redevelopment project areas into one area. Of these areas, the Southwest Industrial Park Project

area contains the Santa Ana River, which may contain wetlands as defined by Section 404 of the Clean Water Act. A biological resource constraints analysis will be prepared and incorporated into the analysis provided in the EIR. This impact is considered potentially significant and will be evaluated in the EIR.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Potentially Significant Impact. The proposed project includes the consolidation of seven redevelopment project areas into one area. Of these areas, the Southwest Industrial Park Project area contains the Santa Ana River, which is considered to be the only area where there may be a potential to interfere with the movement of native resident or migratory fish/wildlife species. A biological resource constraints analysis will be prepared and incorporated into the analysis provided in the EIR. This impact is considered potentially significant and will be evaluated in the EIR.

e) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less Than Significant Impact. Portions of the project areas are located within potential habitat for sensitive wildlife species as depicted in Figure NRC-1 of the San Bernardino General Plan. Portions of these areas are considered biological resource areas (as depicted on General Plan Figure NRC-2). However, these areas are not located within an adopted habitat conservation plan or natural community conservation area. Therefore, less than significant impacts would occur and further analysis in the EIR is not required.

V. CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the Project:				
a) Be developed in a sensitive archaeological area as identified in the City's General Plan?	☑	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5 of CEQA?	☑	☐	☐	☐
c) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5 of CEQA?	☑	☐	☐	☐
d) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☑	☐	☐	☐
e) Disturb any human remains, including those interred outside of formal cemeteries?	☑	☐	☐	☐

Discussion:

a) *Be developed in a sensitive archaeological area as identified in the City's General Plan?*

Potentially Significant Impact. Portions of the project areas are located within the City's identified Urban Archaeological District (General Plan EIR, Figure 5.4-2). The proposed project would be consistent with General Plan Goal 11.5 and policies 11.5.1 through 11.5.3, which were designed to protect and enhance archaeological resources within the City of San Bernardino. In addition, a cultural resources constraints analysis will be prepared and incorporated into the analysis provided in the EIR. This impact is considered potentially significant and will be evaluated in the EIR.

b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of CEQA?*

Potentially Significant Impact. There is a potential that archaeological resources may be located within the project areas, predominantly within areas that are undeveloped or left in a natural state (Santa Ana River). A cultural resources constraints analysis will be prepared for the project areas, which will determine the potential for presence/absence of archaeological resources within the project areas. This impact is considered potentially significant and will be evaluated in the EIR.

c) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5 of CEQA?

Potentially Significant Impact. There is a potential that historical resources may be located within the project areas, predominantly within areas that were developed over fifty years ago (predominantly Center City project areas). A cultural resources constraints analysis will be prepared for the project areas, which will determine the potential for historical resources within the project areas. This impact is considered potentially significant and will be evaluated in the EIR.

d) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Potentially Significant Impact. There is a potential that paleontological resources may be located within the project areas, predominantly within areas that are undeveloped or left in a natural state (Santa Ana River). A cultural resources constraints analysis will be prepared for the project areas, which will determine the potential for presence/absence of paleontological resources within the project areas. This impact is considered potentially significant and will be evaluated in the EIR.

e) Disturb any human remains, including those interred outside of formal cemeteries?

Potentially Significant Impact. There are no known formal gravesites within the project limits. Several cemeteries exist within close proximity to the project areas. Pioneer Memorial Cemetery is a block east of the Central City North Project Area and the Montecito Memorial Park is located just south of the South Valle Project Area. However, the possibility still remains that human remains could be encountered during grading. Standard mitigation measures typically used for impacts of this kind include adherence to State Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98. These impacts require additional analysis in the EIR to assess their level of significance.

VI. GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the Project:				
a) Involve earth movement (cut and/or fill) based on information included in the Project Description Form?	☑	☐	☐	☐
b) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death?	☑	☐	☐	☐
c) Be located within an Alquist-Priolo Earthquake Fault Zone?	☑	☐	☐	☐
d) Result in substantial soil erosion or the loss of topsoil?	☑	☐	☐	☐
e) Be located within an area subject to landslides, mudslides, subsidence, or other similar hazards as identified in the City's General Plan?	☑	☐	☐	☐
f) Be located within an area subject to liquefaction as identified in the City's General Plan?	☑	☐	☐	☐
g) Modify any unique physical feature based on a site survey/evaluation?	☐	☐	☑	☐
h) Result in erosion, dust, or unstable soil conditions from excavation, grading, fill, or other construction activities?	☐	☐	☑	☐

Discussion:

a) Involve earth movement (cut and/or fill) based on information included in the Project Description Form?

Potentially Significant Impact. The proposed project does not involve earth movement (cut and/or fill). However, as part of the proposed project, a series of infrastructure facilities (i.e., roadway, storm drain, curb and gutter, sewer/water improvements) may be constructed as part

of the City's Capital Improvements Program, which could involve earth movement. This impact is considered potentially significant and will be evaluated in the EIR.

b) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death?

Potentially Significant Impact. The proposed project could indirectly expose people and structures to potential substantial adverse effects, including the risk of loss, injury, or death associated with seismic shaking and earthquake hazards. The project area is bisected by the San Jacinto Fault Zone and is in close proximity to the San Andreas Fault Zone, both of which are considered active faults by the California Geological Survey (General Plan Figure S-3). In addition, General Plan Figure S-5 and S-6 identifies this part of the City as an area of high liquefaction potential, and potential ground subsidence. This impact is considered potentially significant and will be evaluated in the EIR.

c) Be located within an Alquist-Priolo Earthquake Fault Zone?

Potentially Significant Impact. According to Figure S-3 of the General Plan, the San Jacinto Fault Zone transects the proposed project area in a northwest-southeast direction. This fault zone is considered active under the Alquist-Priolo Earthquake Fault Zoning Act. The southern portion of the project area (predominantly the Southeast Industrial Park and South Valle project areas) closest to the I-10/I-215 interchange is considered to have a high potential for fault rupture. This impact is considered potentially significant and will be evaluated in the EIR.

d) Result in substantial soil erosion or the loss of topsoil?

Potentially Significant Impact. Soil erosion is defined as the detachment and movement of soil particles by the erosive forces of wind or water. It is not anticipated that soil erosion would occur as a result of the proposed project. The proposed project and future developments within the project areas will be required to comply with existing Army Corps of Engineers, City of San Bernardino, and California Regional Water Quality Control Board (RWQCB) design and operational requirements. Further analysis will be conducted within the EIR regarding impacts associated with soil erosion.

e) Be located within an area subject to landslides, mudslides, subsidence, or other similar hazards as identified in the City's General Plan?

Potentially Significant Impact. According to the General Plan, the project areas have gentle topography that limit the potential for landslides and mudslides. Portions of the project area located along the Santa Ana River Channel may be susceptible to mudflows and debris flows associated with upstream flooding events. In addition, the proposed project is located within

an area of potential ground subsidence (as depicted on Figure S-6 of the General Plan). This condition is associated with shallow groundwater levels in this part of the City that can fluctuate from year to year. This impact is considered potentially significant and will be evaluated in the EIR.

f) Be located within an area subject to liquefaction as identified in the City's General Plan?

Potentially Significant Impact. Figure S-5 of the General Plan identifies the areas within the City susceptible to liquefaction. The project areas are located in an area that has a moderate to high susceptibility for liquefaction. This impact is considered potentially significant and will be evaluated further in the EIR.

g) Modify any unique physical feature based on a site survey/evaluation?

Less Than Significant Impact. The proposed project would amend and merge seven of the City's redevelopment project areas into one area. Implementation of the proposed project does not involve direct modification of any unique physical features. Therefore, less than significant impacts would occur and further analysis in the EIR is not required.

h) Result in erosion, dust, or unstable soil conditions from excavation, grading, fill, or other construction activities?

Less Than Significant Impact. The proposed project would amend and merge seven of the City's redevelopment project areas into one area. Implementation of the proposed project may have indirect impacts on erosion, dust, and unstable soil conditions from excavation, grading, fill, or other construction activities associated with infrastructure improvements within the project areas. These improvements would comply with all applicable City standards and conditions, which have been established to minimize and/or avoid construction-related impacts. Therefore, less than significant impacts would occur and further analysis in the EIR is not required.

VII. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the Project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☑	☐	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☑	☐	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☑	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☑	☐	☐	☐
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☑	☐	☐	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☑	☐

VII. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☑

Discussion:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Potentially Significant Impact. Although the proposed project would not modify existing land uses, the proposed project contains existing industrial, commercial, and public facility uses that may involve limited amounts of hazardous materials, such as dry cleaners, gas stations, and chemical fertilizers/pesticides applied to landscaping and park areas. Such use of hazardous materials, although not expected to pose a risk to people residing or working in the area, could result in potentially significant impacts. The potential for the proposed project to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials will be evaluated in the EIR.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Potentially Significant Impact. As indicated in Response VII(a), the proposed project may involve the use, transport, and disposal of hazardous materials, which could potentially result in a release of such materials into the environment. Due to the potential for upset and accident conditions to result from the project involving a release of hazardous materials, impacts are considered potentially significant and will be evaluated in the EIR.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. Several schools are located within close proximity to the project areas; however, it is not anticipated that hazardous emissions or materials will be emitted upon implementation of the proposed project. Therefore, less than significant impacts would occur and further analysis in the EIR is not required.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Potentially Significant Impact. Superfund is a program administered by the EPA to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list maintained by the EPA contains information on hazardous waste sites, potential hazardous waste sites, and remedial activities across the nation. General Plan EIR Table 5.6-3 lists sites within the City of San Bernardino on the CERCLIS list. The database includes sites that are on the National Priorities List (NPL) or being considered for the NPL. Two sites within or near to the City of San Bernardino are located on the NPL List and are designated Superfund Sites: the Norton Air Force Base and the Newmark Groundwater Contamination site.

According to Table 5.6-3, the following sites are identified as either CERCLIS or NPL sites located within the City. The table identifies which of these sites are located within the project area.

City of San Bernardino General Plan EIR Table 5.6-3

	Site Name	Address	Located in the Project Area
CERCLIS	Hanford Foundry Company	119 South Arrowhead	Yes, within Central City South and Central City/Meadowbrook Project Areas
	Camp Ono	215 North of University Parkway and Cajon Boulevard	No, N-NW of Project Areas
	Flintkote Asbestos	San Bernardino* (Site location not identified)	Unknown
	Lawrence E McConnehey/ Trojan Plating, Inc.	268 & 236 South Mountain View Avenue	No, 1 block SE of Central City South and Central City/ Meadowbrook Project Areas
	Phil's Charbroil Burgers	835 East 3rd Street	No, 2 blocks E of Central City East Project Area
	Quality Plating Inc.	456 South "I" Street	No, one block W of the 215 and the Central City South Project Area
	Southwest Metal Co.	740 Congress Street	Yes, within Central City South Project Area
NPL	Newmark Groundwater Contamination Site	Bunker Hill Groundwater Basin	No, E of the project areas in Redlands
	U.S. Air Force – Norton	305 South Tippecanoe Avenue	No, approx. 1 mile N of SE Industrial Park Project Area

Source: Environmental Protection Agency. Superfund (CERCLIS) Database. Obtained March 2005 from http://www.epa.gov/enviro/html/cerclis/cerclis_query.html

The EIR will review regulatory records pertaining to the project areas and nearby properties, including the California Hazardous Material Incident Report System (Cortese List). According to the Department of Toxic Substances website, the project areas are not listed on the DTSC Cortese List. Due to the presence of sites currently identified as CERCLIS or NPL sites located within the project area, impacts are considered potentially significant and will be evaluated in the EIR.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

Potentially Significant Impact. Figure LU-4 of the General Plan, depicts the Airport Influence Area for the San Bernardino International Airport (SBIA). Portions of the Tri-City and Southeast Industrial Park redevelopment areas are located within the SBIA influence area. Development associated with implementation of the proposed project may contribute to an increase in people residing or working in the project areas in the future. Due to the proximity of the SBIA to the project areas, impacts are considered potentially significant and will be evaluated in the EIR.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The Safety Element (Chapter 10) of the General Plan outlines the goals and policies pertaining to emergency preparedness and response. The proposed project would not involve changes to land use and/or circulation within this part of the City. Based on this, implementation of the proposed project would not interfere with the City's emergency preparedness and response plans Less than significant impacts would occur and further analysis in the EIR is not required.

g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. Figure S-9 of the General Plan identifies fire hazard areas within the City. According to this exhibit, the project area is located outside of all identified high fire hazard areas within the City. No impacts would occur in this regard. Therefore, further analysis in the EIR regarding this topic is not required.

VIII. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the Project:				
a) Violate any water quality standards or waste discharge requirements?	☑	☐	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☑	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☑	☐	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☑	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, such as from areas of material storage, vehicle or equipment maintenance (including washing or detailing), waster handling, hazardous	☑	☐	☐	☐

VIII. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
materials handling or storage, delivery areas, loading docks, or other outdoor areas?				
f) Otherwise substantially degrade water quality?	☑	☐	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? (Panel No. 06071C7930 F)	☑	☐	☐	☐
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☑	☐	☐	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☑	☐	☐	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☑	☐

Discussion:

a) Violate any water quality standards or waste discharge requirements?

Potentially Significant Impact. Impacts to water quality would range over three different periods: (1) during the earthwork and construction phase, when the potential for erosion, siltation, and sedimentation would be the greatest; (2) following construction, prior to the establishment of ground cover, when the erosion potential may remain relatively high; and (3) following completion of any projects undertaken in the proposed project area, when impacts related to sedimentation would decrease markedly, but those associated with urban runoff would increase.

Although all future development associated with implementation of the proposed project would be required to comply with applicable water quality regulations of affected regulatory agencies, impacts to water quality are considered potentially significant and will be evaluated in the EIR.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less Than Significant Impact. The proposed project is located within a predominantly urbanized area of the City. A majority of the project areas are covered in impermeable surfaces, which currently prevent groundwater recharge in this part of the City. In addition, this part of the City currently experiences shallow groundwater levels, which can pose constraints on development (i.e., liquefaction, subsidence, etc.). Implementation of the proposed project would not cause a significant increase of impervious surfaces and therefore would not substantially deplete groundwater supplies or interfere with groundwater recharge. In some cases, a decrease in groundwater recharge within this part of the City may be considered a beneficial impact. Impacts would be less than significant. Therefore, further analysis in the EIR regarding this topic is not required.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Potentially Significant Impact. The proposed project would not alter existing drainage patterns within this part of the City. As part of the proposed project, infrastructure improvements may be constructed which could improve drainage conditions within the area. Implementation of the proposed project could improve drainage conditions within the area affecting future developments as they occur. Further analysis will be conducted in the EIR.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off-site?

Less Than Significant Impact. The project does not propose the alteration of a stream or river, nor will it substantially increase the rate or amount of surface runoff that could result in flooding on or off-site. Therefore, less than significant impacts would occur and further analysis in the EIR is not required.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, such as from areas of material storage, vehicle or equipment maintenance (including washing or detailing), waste handling, hazardous materials handling or storage, delivery areas, loading docks, or other outdoor areas?

Potentially Significant Impact. The project proposes the consolidation of seven redevelopment project areas into one area. In addition to this, several infrastructure improvements may be constructed as part of the City's Capital Improvement Program, which could include storm drain improvements. These improvements will be constructed to reduce existing deficiencies and improve current conditions. In addition, all future developments within the project areas will be required to comply with all applicable city, county, state, and federal water quality rules and regulations. Further analysis of the hydrological impacts associated with the proposed project will be conducted in the EIR.

f) Otherwise substantially degrade water quality?

Potentially Significant Impact. The proposed project would not directly substantially degrade water quality. However, as noted above in Responses VIII(a-e), there is the potential for development associated with implementation of the proposed project to create hydrological impacts. Thus, further analysis of the hydrological impacts associated with the proposed project will be conducted in the EIR.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? (Panel No. 06071C7930F)

Potentially Significant Impact. According to General Plan Figure S-1, portions of the project areas are located within a 100-year flood hazard area. At this time, residential uses may be located within these flood hazard areas. This impact is considered potentially significant and will be evaluated in the EIR.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Potentially Significant Impact. According to General Plan Figure S-1, portions of the project areas are located within a 100-year flood hazard area. The placement of temporary or permanent structures may occur within these areas, upon project implementation. This impact is considered potentially significant and will be evaluated in the EIR.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Potentially Significant Impact. General Plan Figure S-2 identifies dam inundation areas within the City as a result of failure of the Seven Oaks Dam upstream. Portions of the Tri-City, South Valle, Center City South, and Southeast Industrial Park redevelopment areas would be affected if dam failure occurred. People or structures within these areas could be exposed to a significant risk of loss, injury, or death involving flooding as a result of this failure. This impact is considered potentially significant and will be evaluated in the EIR.

j) Inundation by seiche, tsunami, or mudflow?

Less Than Significant Impact. There are no oceans, lakes, or reservoirs near the project areas; therefore, impacts from seiche and tsunami are not anticipated. Also, the project areas are not located within an area susceptible to landslides or mudflows. Therefore, less than significant impacts would occur and further analysis in the EIR is not required.

IX. LAND USE AND RELEVANT PLANNING

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the Project:				
a) Physically divide an established community?	☐	☐	☐	☑
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☑	☐	☐	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☑	☐
d) Be developed within the Hillside Management Overlay District?	☐	☐	☐	☑
e) Be developed within Foothill Fire Zones, A, B, or C as identified in the City's General Plan?	☐	☐	☐	☑
f) Be developed within the Airport Influence Area as adopted by the San Bernardino International Airport Authority?	☑	☐	☐	☐

Discussion:

a) Physically divide an established community?

No Impact. According to CEQA, the standard for dividing an established community applies only to projects, such as highway construction, that would constitute physical barriers dividing a community. The proposed project would amend and merge seven redevelopment project

areas into one area, which would not physically divide an established community. No impacts would occur and further analysis in the EIR is not required.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Potentially Significant Impact. The project proposes the consolidation of seven redevelopment project areas into one area. Implementation of the proposed project does not require changes to land use and/or zoning designations. However, it is important to note that the existing General Plan land use and zoning designations may be altered in the future as a result of this project. Adoption of new and updated overlay districts intended to promote transit-oriented development and intensified redevelopment of the downtown core area is contemplated within the amended and merged project areas. This impact is considered potentially significant and will be evaluated in the EIR.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

Less Than Significant Impact. Portions of the project areas are located within potential habitat for sensitive wildlife species as depicted in Figure NRC-1 of the San Bernardino General Plan. Portions of these areas are considered biological resource areas (as depicted on General Plan Figure NRC-2). However, these areas are not located within an adopted habitat conservation plan or natural community conservation area. Therefore, less than significant impacts would occur and further analysis in the EIR is not required.

d) Be developed within the Hillside Management Overlay District?

No Impact. According to Figure LU-2 of the General Plan, the project areas are not located within the City's Hillside Management Overlay District. No impacts would occur and further analysis in the EIR is not required.

e) Be developed within Foothill Fire Zones, A, B, or C as identified in the City's General Plan?

No Impact. According to Figure LU-2 of the General Plan, the project areas are not located within the City's Fire Zones A, B, or C. No impacts would occur and further analysis in the EIR is not required.

f) Be developed within the Airport Influence Area as adopted by the San Bernardino International Airport Authority?

Potentially Significant Impact. The project areas are located within the Airport Influence area as adopted by the San Bernardino International Airport Authority. Due to proximity to the San Bernardino International Airport there is a potential for significant impacts associated with airport operations. This impact is considered potentially significant and will be evaluated in the EIR.

X. MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the Project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☑	☐
b) Result in the loss of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☑	☐
c) Be located in a Mineral Resource Zone as adopted by the State Mining and Geology Board and identified in the City's General Plan?	☐	☐	☑	☐

Discussion:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Less than Significant Impact. The project areas occur within Mineral Resource Zones MRZ-1 and MRZ-2 as adopted by the State Mining and Geology Board and as identified in the City's General Plan, Figure NRC-3. The primary goal of mineral resource classification is to identity regionally significant mineral deposits in an effort to conserve and develop them for anticipated aggregate production needs of the region. The MRZ-1 area indicates the absence of significant mineral deposits and the MRZ-2 area indicates the existence of construction aggregate deposits that meet certain state criteria for value and marketability based solely on geologic factors. By statute, the Board does not utilize existing land uses as a criterion in its classification of Mineral Resources Zones. Based on developments located within the project and surrounding areas and the improbability of permitting a mine operation within this part of the City, the proposed project would not result in the loss of availability of a known mineral resource. Therefore, less than significant impacts would occur and further analysis in the EIR is not required.

b) Result in the loss of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Less than Significant Impact. Refer to Response X(a). Less than significant impacts would occur and further analysis in the EIR is not required.

c) Be located in a Mineral Resource Zone as adopted by the State Mining and Geology Board and identified in the City's General Plan?

Less than Significant Impact. Refer to Response X(a). Less than significant impacts would occur and further analysis in the EIR is not required.

XI. NOISE

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the Project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the City's General Plan or Development Code, or applicable standards of other agencies?	☑	☐	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☑	☐	☐	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐
e) For a project located within an airport land use plan or Airport Influence Area, would the project expose people residing or working in the project area to excessive noise levels?	☑	☐	☐	☐

Discussion:

a) Exposure of persons to or generation of noise levels in excess of standards established in the City's General Plan or Development Code, or applicable standards of other agencies?

Potentially Significant Impact. The project proposes the consolidation of seven individual redevelopment project areas into one area. As part of the proposed project, infrastructure improvements constructed within this part of the City may create short-term noise impacts. These short-term impacts would occur during grading and construction, and may expose adjacent uses to increased noise/vibration levels. The project areas include sensitive land uses

such as residential neighborhoods and schools. Further analysis of short-term noise impacts will be conducted in the EIR.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Potentially Significant Impact. Refer to Response XI(a). Further analysis will be conducted in the EIR.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. The project proposes the consolidation of seven individual redevelopment project areas into one area. Future improvements in the project areas could result in temporary and periodic increases in noise levels in the project vicinity due to the operation of construction activities. Noise reduction measures may be required to reduce noise impacts during construction. Future projects would be reviewed and approved by the City of San Bernardino for compliance with the City's noise standards. Therefore, impacts are anticipated to be less than significant. Further analysis in the EIR regarding this topic is not required.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. Refer to Response XI(a). Impacts are anticipated to be less than significant. Further analysis in the EIR regarding this topic is not required.

e) For a project located within an airport land use plan or Airport Influence Area, would the project expose people residing or working in the project area to excessive noise levels?

Potentially Significant Impact. According to General Plan Figure LU-4, a portion of the proposed project is located within the San Bernardino International Airport influence area. Close proximity to this facility could expose people residing or working within the area to excessive noise levels. This impact is considered potentially significant and will be evaluated in the EIR.

XII. POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the Project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☑	☐	☐	☐
b) Remove existing housing and displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☑	☐	☐	☐

Discussion:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Potentially Significant Impact. The project proposes the consolidation of seven individual redevelopment project areas into one area. The proposed project includes the construction of infrastructure improvements within this part of the City, which could indirectly induce population growth. This growth could be attributed to future developments/redevelopments in this area that may include new housing and/or jobs. For these reasons it is anticipated that population growth in this area may be a cumulative impact. Further analysis will be conducted in the EIR.

b) Remove existing housing and displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Potentially Significant Impact. The proposed project would result in the redevelopment and rehabilitation of abandoned and blighted uses, some of which may be residential. While it is not anticipated that a substantial number of existing residential units would be displaced, there is a potential that it may occur. This impact is considered potentially significant and will be evaluated in the EIR.

XIII. PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
PUBLIC SERVICES				
a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection, including medical aid?	☑	☐	☐	☐
Police protection?	☑	☐	☐	☐
Schools?	☑	☐	☐	☐
Parks or other recreational facilities?	☑	☐	☐	☐
Other governmental services?	☑	☐	☐	☐

Discussion:

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

1) Fire protection, including medical aid?

Potentially Significant Impact. The proposed project could remove barriers for development/redevelopment in this part of the City, which may impact the demand for fire protection and medical aid. This impact is considered potentially significant and will be evaluated in the EIR.

2) Police protection?

Potentially Significant Impact. The proposed project could remove barriers for development/redevelopment in this part of the City, which could impact the demand for police protection services. This impact is considered potentially significant and will be evaluated in the EIR.

3) Schools?

Potentially Significant Impact. The proposed project could remove barriers for development/redevelopment in this part of the City, which could impact the demand for schools. This impact is considered potentially significant and will be evaluated in the EIR.

4) Parks or other recreational facilities?

Potentially Significant Impact. The proposed project could remove barriers for development/redevelopment in this part of the City, which could impact the demand for parks or other recreational facilities. This impact is considered potentially significant and will be evaluated in the EIR.

5) Other governmental services?

Potentially Significant Impact. The proposed project could remove barriers for development/redevelopment in this part of the City, which could impact the demand for other governmental services such as library services. This impact is considered potentially significant and will be evaluated in the EIR.

XIV. RECREATION

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☑	☐	☐	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☑	☐	☐	☐

Discussion:

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Potentially Significant Impact. The proposed project could remove barriers for development/redevelopment in this part of the City, which could increase the use of existing neighborhood and regional parks or other recreational facilities. This impact is considered potentially significant and will be evaluated in the EIR.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse effect on the environment?

Potentially Significant Impact. The proposed project could remove barriers for development/redevelopment in this part of the City, which could require the construction/ expansion of recreational facilities. This impact is considered potentially significant and will be evaluated in the EIR.

XV. TRANSPORTATION/TRAFFIC

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the Project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☑	☐	☐	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the County congestion management agency for designated roads or highways?	☑	☐	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☑	☐
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☑	☐
e) Result in inadequate emergency access?	☐	☐	☑	☐
f) Result in inadequate parking capacity?	☐	☐	☑	☐
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☑

Discussion:

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

Potentially Significant Impact. The proposed project does not include a change in land use within this part of the City. However, as a result of the project (implementation of infrastructure improvements and removal of barriers to development) it is anticipated that future developments that occur within the project areas may contribute to a long-term increase in traffic. In addition, any construction activities that occur as a result of the proposed project may result in temporary construction-related traffic impacts. Further analysis will be conducted in the EIR.

b) Exceed, either individually or cumulatively, a level of service standard established by the County congestion management agency for designated roads or highways?

Potentially Significant Impact. Refer to Response XV(a). Further analysis will be conducted in the EIR.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Less Than Significant Impact. The project areas are located within the vicinity of the San Bernardino International Airport; however, the project is not proposing a change to land use within these areas and it is not anticipated that the project would have a significant impact to air traffic patterns or an increase in air traffic levels. Therefore, less than significant impacts would occur and further analysis in the EIR is not required.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than Significant Impact. The project proposes several infrastructure improvements throughout this part of the City, which may include the repair and upgrade to roadways and intersections. As part of the proposed project, potentially hazardous conditions will be addressed through the City's Capital Improvements Program. Therefore, less than significant impacts would occur and further analysis in the EIR is not required.

e) Result in inadequate emergency access?

Less Than Significant Impact. All future development within the project areas would be subject to design review by the City's fire and police departments to assure that adequate emergency access is provided. In addition, the City's standard review procedures prior to issuance of grading permits would reduce impacts to a less than significant level. Therefore, less than significant impacts would occur and further analysis in the EIR is not required.

f) Result in inadequate parking capacity?

Less than Significant Impact. Future developments, as a result of implementation of the proposed project, would be required to meet all applicable City parking standards. Therefore, less than significant impacts would occur and further analysis in the EIR is not required.

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

No Impact. The proposed project would not conflict with adopted policies, plans, or programs supporting alternative transportation. No impacts would occur and further analysis in the EIR is not required.

XVI. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the Project:				
a) Exceed wastewater treatment requirements of the Santa Ana Water Quality Control Board?	☑	☐	☐	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?	☑	☐	☐	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☑	☐	☐	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☑	☐	☐	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☑	☐	☐	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☑	☐	☐	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☑

Discussion:

a) Exceed wastewater treatment requirements of the Santa Ana Water Quality Control Board?

Potentially Significant Impact. The proposed project uses would generate wastewater that would be conveyed to and treated by the City's wastewater collection and treatment system. Although the wastewater flows related to implementation of the proposed project are not anticipated to represent a significant portion of the overall wastewater flows conveyed and treated by the City's system, the degree to which these flows could contribute to an exceedance of the system's capacity has not been determined. Such an exceedance could result in the applicable wastewater treatment plant exceeding the established treatment requirements of the Santa Ana Regional Water Quality Control Board (RWQCB). This impact is considered potentially significant and will be evaluated in the EIR.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

Potentially Significant Impact. As noted in Response XVI(a), the proposed project's contribution to wastewater flows to the affected wastewater treatment plant has not been evaluated. As such, it is possible that the project-related flows could require the construction of new treatment facilities, or expansion of new facilities, to meet projected demands. This is considered a potentially significant impact and will be evaluated in the EIR.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Potentially Significant Impact. The project-related stormwater flows and the capacity of the stormwater infrastructure serving the project areas have not been evaluated. Nonetheless, the introduction of impermeable surfaces and increase in development activities could increase stormwater flows in the local stormwater drainage facilities in excess of capacity. Therefore, this impact is considered potentially significant and will be evaluated in the EIR.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Potentially Significant Impact. The proposed project would require potable water for proposed active uses, while recycled water (if available) may be utilized for irrigation purposes. Given that the proposed project's projected water demands have not been estimated, it is not possible to determine the adequacy of the City's water supplies relative to overall demand. This impact is considered potentially significant and will be evaluated in the EIR.

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Potentially Significant Impact. As indicated previously, the degree to which project-related wastewater flows could contribute to an exceedance of the treatment capacity of the affected wastewater treatment plant has not been determined. Therefore, given that the proposed project would contribute flows to the City's wastewater system, impacts to the affected wastewater treatment plant are considered potentially significant and will be evaluated in the EIR.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Potentially Significant Impact. The proposed project would generate solid waste that would require disposal at an appropriate landfill or other disposal facility. The proposed project's contribution to the waste stream at affected landfills that would serve the project areas has not been evaluated, and it is not possible to assess the adequacy of solid waste disposal capacity in the region through the life of the proposed project. Consequently, impacts to solid waste disposal facilities are considered potentially significant and will be evaluated in the EIR.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. All development would be required to comply with federal, state, and local statutes relative to solid waste. No impacts would occur in this regard.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☑	☐	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☑	☐	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☑	☐	☐	☐

Discussion:

The following findings have been made, regarding the mandatory findings of significance set forth in *CEQA Guidelines* Section 15065 , based on the results of this environmental assessment:

a). Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict

the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Potentially Significant Impact. The proposed project would combine seven previously established redevelopment areas within the City of San Bernardino. A majority of these project areas have been developed at some point and are considered urbanized. In some instances properties within these areas may contain hazardous materials, and/or may be in a state of physical, economic, and/or social blight.

According to the City of San Bernardino General Plan, the project areas located within the vicinity of the Santa Ana River riparian corridor may contain sensitive species such as the San Bernardino kangaroo rat, Delhi sands giant flower-loving fly, least Bell's vireo, burrowing owl, Santa Ana Woolly Star, etc. In addition, it is not known whether as-yet undiscovered historical, archaeological, or paleontological resources exist within the project areas. However, resources of this type could be identified/uncovered during construction operations. Accordingly, mitigation will be incorporated into the proposed project to address this possibility. This impact is considered potentially significant and further analysis will be conducted in the EIR.

b). Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Potentially Significant Impact. The proposed project could contribute to impacts that are individually limited but cumulatively considerable. Further analysis is required in the EIR to determine which projects in the surrounding area could contribute to cumulative effects and the significance of those effects in conjunction with the proposed project. Cumulative impacts of the proposed project and related projects are considered potentially significant and will be evaluated in the EIR, pursuant to *CEQA Guidelines* Section 15130.

c). Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Potentially Significant Impact. The proposed project could potentially affect human beings, either directly or indirectly. This impact is considered potentially significant and will be evaluated in the EIR.

REFERENCES

LEAD AGENCY:

City of San Bernardino
Economic Development Agency
201 North "E" Street, Suite 301
San Bernardino, CA 92401
Mr. Jeffrey Smith, AICP

ENVIRONMENTAL CONSULTANT:

RBF Consulting
3300 East Guasti Road, Suite 100
Ontario, California 91761

Mr. Kevin Thomas, Project Director
Ms. Collette L. Morse, AICP, Project Manager
Mr. Aaron Pfannenstiel, AICP, Assistant Project Manager/Sr. Environmental Analyst
Carolyn La Prade, Environmental Analyst

The following references were utilized during preparation of this Initial Study:

- Alquist-Priolo Map: San Bernardino South Quadrangle, 1977
- California Department of Conservation, California Geological Survey website, www.consrv.ca.gov.
- California Environmental Quality Act CEQA Guidelines, 2009.
- City of San Bernardino General Plan, 2005.
- City of San Bernardino General Plan EIR, 2005.
- Mineral Resource Map: Mineral Land Classification of the San Bernardino Valley Area, 1995

APPENDIX B
NOTICE OF PREPARATION COMMENTS

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

2009 NOV 30 PM 4 54
CITY OF SAN BERNARDINO
AGENCY

Notice of Preparation

November 24, 2009

To: Reviewing Agencies

Re: San Bernardino Redevelopment Project Area Merger - Area A
SCH# 2009111089

Attached for your review and comment is the Notice of Preparation (NOP) for the San Bernardino Redevelopment Project Area Merger - Area A draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Jeffrey Smith
City of San Bernardino
Economic Development Agency
201 North E Street, Suite 301
San Bernardino, CA 92401

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

for: Scott Morgan
Acting Director, State Clearinghouse

Attachments
cc: Lead Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2009111089
Project Title San Bernardino Redevelopment Project Area Merger - Area A
Lead Agency San Bernardino, City of

Type NOP Notice of Preparation

Description The proposed project is located in the eastern portion of the City of San Bernardino. The proposed project involves various redevelopment plan amendments and the merger of seven of the Agency's Redevelopment Project Areas. The Redevelopment Project Areas are currently surrounded by developed properties and have been deemed redevelopment areas based on their underutilization. Currently, the seven Redevelopment Project Areas consist of many land uses, not all of which are being utilized to their highest and best use, but improving with the implementation of redevelopment projects.

Lead Agency Contact

Name Jeffrey Smith
Agency City of San Bernardino
Phone 909-663-1044 **Fax**
email
Address Economic Development Agency
201 North E Street, Suite 301
City San Bernardino **State** CA **Zip** 92401

Project Location

County San Bernardino
City San Bernardino
Region
Cross Streets Multiple
Lat / Long
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways I-10, I-215
Airports San Bernardino International Air
Railways Metrolink, Amtrak
Waterways
Schools
Land Use Multiple General Plan and Zoning Deisgnations

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Flood Plain/Flooding; Geologic/Seismic; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 6; Native American Heritage Commission; California Highway Patrol; Department of Housing and Community Development; Caltrans, District 8; Integrated Waste Management Board; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 8

Date Received 11/24/2009 **Start of Review** 11/24/2009 **End of Review** 12/23/2009

Note: Blanks in data fields result from insufficient information provided by lead agency.

NOP Distribution List

County: [illegible]

SCH# [illegible]

Resources Agency

- [x] Resources Agency
  Nadell Gayou
- [ ] Dept. of Boating & Waterways
  Mike Sotelo
- [ ] California Coastal Commission
  Elizabeth A. Fuchs
- [ ] Colorado River Board
  Gerald R. Zimmerman
- [ ] Dept. of Conservation
  Rebecca Salazar
- [ ] California Energy Commission
  Eric Knight
- [ ] Cal Fire
  Allen Robertson
- [x] Office of Historic Preservation
  Wayne Donaldson
- [x] Dept of Parks & Recreation
  Environmental Stewardship Section
- [ ] Central Valley Flood Protection Board
  James Herota
- [ ] S.F. Bay Conservation & Dev't. Comm.
  Steve McAdam
- [x] Dept. of Water Resources
  Resources Agency
  Nadell Gayou
- [ ] _____
  Conservancy

Fish and Game

- [ ] Depart. of Fish & Game
  Scott Flint
  Environmental Services Division
- [ ] Fish & Game Region 1
  Donald Koch
- [ ] Fish & Game Region 1E
  Laurie Harnsberger
- [ ] Fish & Game Region 2
  Jeff Drongesen
- [ ] Fish & Game Region 3
  Charles Armor
- [ ] Fish & Game Region 4
  Julie Vance
- [ ] Fish & Game Region 5
  Don Chadwick
  Habitat Conservation Program
- [x] Fish & Game Region 6
  Gabrina Gatchel
  Habitat Conservation Program
- [ ] Fish & Game Region 6 I/M
  Brad Henderson
  Inyo/Mono, Habitat Conservation Program
- [ ] Dept. of Fish & Game M
  George Isaac
  Marine Region

Other Departments

- [ ] Food & Agriculture
  Steve Shaffer
  Dept. of Food and Agriculture
- [ ] Depart. of General Services
  Public School Construction
- [ ] Dept. of General Services
  Anna Garbeff
  Environmental Services Section
- [ ] Dept. of Public Health
  Bridgette Binning
  Dept. of Health/Drinking Water

Independent Commissions,Boards

- [ ] Delta Protection Commission
  Linda Flack
- [ ] Office of Emergency Services
  Dennis Castrillo
- [ ] Governor's Office of Planning & Research
  State Clearinghouse
- [x] Native American Heritage Comm.
  Debbie Treadway
- [ ] Public Utilities Commission
  Leo Wong
- [ ] Santa Monica Bay Restoration
  Guangyu Wang
- [ ] State Lands Commission
  Marina Brand
- [ ] Tahoe Regional Planning Agency (TRPA)
  Cherry Jacques

Business, Trans & Housing

- [ ] Caltrans - Division of Aeronautics
  Sandy Hesnard
- [ ] Caltrans - Planning
  Terri Pencovic
- [x] California Highway Patrol
  Scott Loetscher
  Office of Special Projects
- [x] Housing & Community Development
  CEQA Coordinator
  Housing Policy Division

Dept. of Transportation

- [ ] Caltrans, District 1
  Rex Jackman
- [ ] Caltrans, District 2
  Marcelino Gonzalez
- [ ] Caltrans, District 3
  Bruce de Terra
- [ ] Caltrans, District 4
  Lisa Carboni
- [ ] Caltrans, District 5
  David Murray
- [ ] Caltrans, District 6
  Michael Navarro
- [ ] Caltrans, District 7
  Elmer Alvarez
- [x] Caltrans, District 8
  Dan Kopulsky
- [ ] Caltrans, District 9
  Gayle Rosander
- [ ] Caltrans, District 10
  Tom Dumas
- [ ] Caltrans, District 11
  Jacob Armstrong
- [ ] Caltrans, District 12
  Chris Herre

Cal EPA

Air Resources Board

- [ ] Airport Projects
  Jim Lerner
  - [ ] Transportation Projects
    Douglas Ito
  - [ ] Industrial Projects
    Mike Tollstrup
- [x] California Integrated Waste Management Board
  Sue O'Leary
- [ ] State Water Resources Control Board
  Regional Programs Unit
  Division of Financial Assistance
- [ ] State Water Resources Control Board
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] State Water Resouces Control Board
  Steven Herrera
  Division of Water Rights
- [x] Dept. of Toxic Substances Control
  CEQA Tracking Center
- [ ] Department of Pesticide Regulation
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] RWQCB 1
  Cathleen Hudson
  North Coast Region (1)
- [ ] RWQCB 2
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] RWQCB 3
  Central Coast Region (3)
- [ ] RWQCB 4
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] RWQCB 5S
  Central Valley Region (5)
  - [ ] RWQCB 5F
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] RWQCB 5R
    Central Valley Region (5)
    Redding Branch Office
- [ ] RWQCB 6
  Lahontan Region (6)
  - [ ] RWQCB 6V
    Lahontan Region (6)
    Victorville Branch Office
- [ ] RWQCB 7
  Colorado River Basin Region (7)
- [x] RWQCB 8
  Santa Ana Region (8)
- [ ] RWQCB 9
  San Diego Region (9)

- [ ] Other _____
  _____
  _____

Last Updated on 11/16/2009

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # 2009111089

Project Title: San Bernardino Redevelopment Project Area Merger - Area A

Lead Agency: City of San Bernardino Economic Development Agency
Contact Person: Mr. Jeffrey Smith, AICP
Mailing Address: 201 North E Street, Suite 301
Phone: 909.663.1044
City: San Bernardino
Zip: 92401
County: San Bernardino

Project Location: County: San Bernardino
City/Nearest Community: San Bernardino
Cross Streets: Multiple
Zip Code: 92401
Longitude/Latitude (degrees, minutes and seconds): ____° ____' ____" N / ____° ____' ____" W
Total Acres: 2,823
Assessor's Parcel No.: ____
Section: ____ Twp.: ____ Range: ____ Base: ____
Within 2 Miles: State Hwy #: I-10, I-215
Waterways: ____
Airports: San Bernardino Intl Airport
Railways: Metrolink, Amtrak
Schools: ____

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Document Type:

CEQA:
- [x] NOP
- [ ] Early Cons
- [ ] Neg Dec
- [ ] Mit Neg Dec
- [ ] Draft EIR
- [ ] Supplement/Subsequent EIR (Prior SCH No.) ____
- Other: ____

NEPA:
- [ ] NOI
- [ ] EA
- [ ] Draft EIS
- [ ] FONSI

Other:
- [ ] Joint Document
- [ ] Final Document
- [ ] Other: ____

Local Action Type:

- [ ] General Plan Update
- [ ] General Plan Amendment
- [ ] General Plan Element
- [ ] Community Plan
- [ ] Specific Plan
- [ ] Master Plan
- [ ] Planned Unit Development
- [ ] Site Plan
- [ ] Rezone
- [ ] Prezone
- [ ] Use Permit
- [ ] Land Division (Subdivision, etc.)
- [ ] Annexation
- [x] Redevelopment
- [ ] Coastal Permit
- [ ] Other: ____

Development Type:

- [ ] Residential: Units ____ Acres ____
- [ ] Office: Sq.ft. ____ Acres ____ Employees ____
- [ ] Commercial: Sq.ft. ____ Acres ____ Employees ____
- [ ] Industrial: Sq.ft. ____ Acres ____ Employees ____
- [ ] Educational: ____
- [ ] Recreational: ____
- [ ] Water Facilities: Type ____ MGD ____
- [ ] Transportation: Type ____
- [ ] Mining: Mineral ____
- [ ] Power: Type ____ MW ____
- [ ] Waste Treatment: Type ____ MGD ____
- [ ] Hazardous Waste: Type ____
- [ ] Other: ____

Project Issues Discussed in Document:

- [x] Aesthetic/Visual
- [x] Agricultural Land
- [x] Air Quality
- [x] Archeological/Historical
- [x] Biological Resources
- [ ] Coastal Zone
- [ ] Drainage/Absorption
- [ ] Economic/Jobs
- [ ] Fiscal
- [x] Flood Plain/Flooding
- [ ] Forest Land/Fire Hazard
- [x] Geologic/Seismic
- [ ] Minerals
- [x] Noise
- [x] Population/Housing Balance
- [x] Public Services/Facilities
- [x] Recreation/Parks
- [x] Schools/Universities
- [ ] Septic Systems
- [x] Sewer Capacity
- [x] Soil Erosion/Compaction/Grading
- [x] Solid Waste
- [x] Toxic/Hazardous
- [x] Traffic/Circulation
- [ ] Vegetation
- [x] Water Quality
- [x] Water Supply/Groundwater
- [ ] Wetland/Riparian
- [ ] Growth Inducement
- [x] Land Use
- [x] Cumulative Effects
- [ ] Other: ____

Present Land Use/Zoning/General Plan Designation:

Multiple General Plan and Zoning Designations

Project Description: *(please use a separate page if necessary)*

The proposed project is located in the eastern portion of the City of San Bernardino. The proposed project involves various redevelopment plan amendments and the merger of seven of the Agency's Redevelopment Project Areas. The Redevelopment Project Areas are currently surrounded by developed properties and have been deemed redevelopment areas based on their underutilization. Currently, the seven Redevelopment Project Areas consist of many land uses, not all of which are being utilized to their highest and best use, but improving with the implementation of redevelopment projects.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

DEPARTMENT OF PUBLIC WORKS

FLOOD CONTROL • LAND DEVELOPMENT & CONSTRUCTION
SOLID WASTE MANAGEMENT • SURVEYOR • TRANSPORTATION

COUNTY OF SAN BERNARDINO

825 East Third Street • San Bernardino, CA 92415-0835 • (909) 387-8104
Fax (909) 387-8130

GRANVILLE M. "BOW" BOWMAN, P.E., P.L.S.
Director of Public Works

November 30, 2009

File: 10(ENV)-4.01

RECEIVED BY REDEVELOPMENT AGENCY
2009 DEC 2 PM 4:11
CITY OF SAN BERNARDINO

Redevelopment Agency
City of San Bernardino
Attn: Mr. Jeffrey Smith, AICP, Senior Urban Planner
201 North "E" Street, Suite 301
San Bernardino, CA 92401

RE: NOTICE OF PREPARATION OF DRAFT EIR FOR SAN BERNARDINO REDEVELOPMENT PROJECT AREA MERGER-AREA A

Dear Mr. Smith,

Thank you for giving the San Bernardino County Department of Public Works the opportunity to comment on the above-referenced project.

After reviewing the submitted environmental document, we request that a copy or CD of the EIR document and any technical studies be sent to our Department for our review and comments.

Sincerely,

Frank Molina

FRANK MOLINA, Supervising Planner
Environmental Management Division

FM:mb/CEQA Comments_SB Redev Agency_Merger-Area A_EIR Reqs'd

cc: Naresh P. Varma
GMB/ARI Reading File

County Administrative Officer

Board of Supervisors
BRAD MITZELFELT ..... First District
PAUL BIANE ..... Second District
JOSIE GONZALES ..... Fifth District
NEIL DERRY ..... Third District
GARY C. OVITT ..... Fourth District

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

RECEIVED BY
REDEVELOPMENT AGENCY
2009 DEC 12 AM 11
CITY OF SAN BERNARDINO

November 30, 2009

Mr. Jeffery Smith, AICP, Senior Urban Planner
Redevelopment Agency
City of San Bernardino
201 North "E" Street, Suite 301
San Bernardino, CA 92401

Dear Mr. Smith:

Notice of Preparation of a Draft Environmental Impact Report (Draft EIR) for the San Bernardino Redevelopment Project Area Merger

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the above-mentioned document. The SCAQMD's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the draft environmental impact report (EIR). Please send the SCAQMD a copy of the Draft EIR upon its completion. **In addition, please send with the draft EIR all appendices or technical documents related to the air quality analysis and electronic versions of all air quality modeling and health risk assessment files. Electronic files include spreadsheets, database files, input files, output files, etc., and does not mean Adobe PDF files. Without all files and supporting air quality documentation, the SCAQMD will be unable to complete its review of the air quality analysis in a timely manner. Any delays in providing all supporting air quality documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. Alternatively, the lead agency may wish to consider using the California Air Resources Board (CARB) approved URBEMIS 2007 Model. This model is available on the SCAQMD Website at: www.urbemis.com.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

The SCAQMD has developed a methodology for calculating PM2.5 emissions from construction and operational activities and processes. In connection with developing PM2.5 calculation methodologies, the SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD requests that the lead agency quantify PM2.5 emissions and compare the results to the recommended PM2.5 significance thresholds. Guidance for calculating PM2.5 emissions and PM2.5 significance thresholds can be found at the following internet address: http://www.aqmd.gov/ceqa/handbook/PM2_5/PM2_5.html.

In addition to analyzing regional air quality impacts the SCAQMD recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LST's can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the proposed project, it is recommended that the lead agency perform a localized significance analysis by either using the LSTs developed by the SCAQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at http://www.aqmd.gov/ceqa/handbook/LST/LST.html.

In the event that the proposed project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the lead agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis") can be found on the SCAQMD's CEQA web pages at the following internet address: http://www.aqmd.gov/ceqa/handbook/mobile_toxic/mobile_toxic.html. An analysis of all toxic air contaminant impacts due to the decommissioning or use of equipment potentially generating such air pollutants should also be included.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate significant adverse air quality impacts. To assist the Lead Agency with identifying possible mitigation measures for the project, please refer to Chapter 11 of the SCAQMD CEQA Air Quality Handbook for sample air quality mitigation measures. Additional mitigation measures can be found on the SCAQMD's CEQA web pages at the following internet address: www.aqmd.gov/ceqa/handbook/mitigation/MM_intro.html Additionally, SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook contain numerous measures for controlling construction-related emissions that should be considered for use as CEQA mitigation if not otherwise required. Other measures to reduce air quality impacts from land use projects can be found in the SCAQMD's Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. This document can be found at the following internet address: http://www.aqmd.gov/prdas/aqguide/aqguide.html. In addition, guidance on siting incompatible land uses can be found in the California Air Resources Board's Air Quality and Land Use Handbook: A Community Perspective, which can be found at the following internet address: http://www.arb.ca.gov/ch/handbook.pdf. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. Pursuant to state CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed.

Data Sources

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's World Wide Web Homepage (http://www.aqmd.gov).

The SCAQMD is willing to work with the Lead Agency to ensure that project-related emissions are accurately identified, categorized, and evaluated. Please call Daniel Garcia, Air Quality Specialist, CEQA Section, at (909) 396-3304 if you have any questions regarding this letter.

Sincerely,

Susan Nakamura
Planning Manager
Planning, Rule Development and Area Sources

SN:DG:AK
SBC091125-08AK
Control Number

STATE OF CALIFORNIA

Arnold Schwarzenegger, *Governor*

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
(916) 657-5390 - Fax

RECEIVED BY
DEVELOPMENT AGENCY
2009 DEC 14 PM 3 47
CITY OF SAN BERNARDINO

December 9, 2009

Jeffrey Smith
City of San Bernardino
201 North Street, Suite 301
San Bernardino, CA 92401

RE: SCH#2009111089 San Bernardino Redevelopment Project Area Merger-Area A; San Bernardino County.

Dear Mr. Smith:

The Native American Heritage Commission (NAHC) has reviewed the Notice of Preparation (NOP) referenced above. The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA Guidelines 15064(b)). To comply with this provision the lead agency is required to assess whether the project will have an adverse impact on historical resources within the area of project effect (APE), and if so to mitigate that effect. To adequately assess and mitigate project-related impacts to archaeological resources, the NAHC recommends the following actions:

- ✓ Contact the appropriate regional archaeological Information Center for a record search. The record search will determine:
  - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
  - If any known cultural resources have already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- ✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- ✓ Contact the Native American Heritage Commission for:
  - A Sacred Lands File Check. **USGS 7.5 minute quadrangle name, township, range and section required.**
  - A list of appropriate Native American contacts for consultation concerning the project site and to assist in the mitigation measures. **Native American Contacts List attached.**
- ✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
  - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
  - Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.
  - Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

Sincerely,

Katy Sanchez

Katy Sanchez
Program Analyst
(916) 653-4040

CC: State Clearinghouse

Native American Contact
San Bernardino County
December 9, 2009

San Manuel Band of Mission Indians
James Ramos, Chairperson
26569 Community Center Drive — Serrano
Highland , CA 92346
(909) 864-8933
(909) 864-3724 - FAX
(909) 864-3370 Fax

Morongo Band of Mission Indians
Robert Martin, Chairperson
11581 Potrero Road — Cahuilla
Banning , CA 92220 — Serrano
Robert_Martin@morongo.
(951) 849-8807
(951) 755-5200
(951) 922-8146 Fax

San Fernando Band of Mission Indians
John Valenzuela, Chairperson
P.O. Box 221838 — Fernandeño
Newhall , CA 91322 — Tataviam
tsen2u@live.com — Serrano
(661) 753-9833 Office — Vanyume
(760) 885-0955 Cell — Kitanemuk
(760) 949-1604 Fax

Serrano Nation of Indians
Goldie Walker
6588 Valaria Drive — Serrano
Highland , CA 92346
(909) 862-9883

Morongo Band of Mission Indians
Michael Contreras, Cultural Heritage Prog.
12700 Pumarra Road — Cahuilla
Banning , CA 92220 — Serrano
mcontreras@monongo-nsn.
(951) 755-5025
(951)201-1866 - cell
(951) 922-0105 Fax

Ernest H. Siva
Morongo Band of Mission Indians Tribal Elder
9570 Mias Canyon Road — Serrano
Banning , CA 92220 — Cahuilla
(951) 849-4676
siva@dishmail.com

San Manuel Band of Mission Indians
Ann Brierty, Policy/Cultural Resources Departmen
26569 Community Center. Drive — Serrano
Highland , CA 92346
abrierty@sanmanuel-nsn.
(909) 864-8933 EXT-3250
(909) 649-1585 - cell
(909) 862-5152 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH# 2009111089 San Bernardino Redevelopment Project Area Merger-Area A; San Bernardino County.

CITY OF SAN BERNARDINO
MUNICIPAL WATER DEPARTMENT
INTEROFFICE MEMORANDUM

RECEIVED
REDEVELOPMENT AGENCY
2009 DEC 16 PM 3:35
CITY OF SAN BERNARDINO

TO: Mr. Jeffrey Smith, AICP, Senior Urban Planner
Redevelopment Agency

FROM: Mike Nevarez, Water Utility Engineer
San Bernardino Municipal Water Department

SUBJECT: **NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR SAN BERNARDINO REDEVELOPMENT PROJECT AREA MERGER – AREA A, (EPN 2009-009)**

DATE: December 10, 2009

COPIES: Matt Litchfield, Director of Water Utility, Greg Gage, SBMWD Engineering Manager

---

The San Bernardino Municipal Water Department (Department) received the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the San Bernardino Redevelopment Project Area Merger - Area A. The Department has reviewed the NOP and is providing its written response within the public review period of November 24, 2009 through December 23, 2009.

The NOP discusses the Redevelopment Agency's plan to merge seven (7) previously established redevelopment project areas. The proposed project is located in the eastern portion of the City of San Bernardino. The project area encompasses approximately 2,823 acres in the Department's Lower Pressure Zone with land use designations of single and multi-family residential, industrial, commercial, open space, and vacant land. The Department was previously contacted by the Redevelopment Agency's consulting firm Rosenow Spevacek Group Inc (RSG). The Department responded to an initial set of questions in its October 7, 2009 correspondence to RSG.

The San Bernardino Redevelopment Project Area Merger – Area A consists of combining existing redevelopment project areas with no specific construction projects identified. Accordingly, the Department has no comments on the DEIR submitted. Upon submittal of future construction projects requiring water service or upgrades to the Departments facilities, the Department will review and comment as required.

If you have any further questions please contact me at (909) 384-5092 for further assistance. Please reference EPN 2009-009 in any communications regarding this project.

Sincerely,

Michael Nevarez
Water Utility Engineer

MN:jmt
\\Wuserver\@data\WUEngineering\C Drive Folders\Taylor, Joelle\Mike\San Bernardino Redevelopment Project Area Merger - Area A (2).doc

Linda S. Adams
Secretary for
Environmental Protection

Department of Toxic Substances Control

Maziar Movassaghi, Acting Director
5796 Corporate Avenue
Cypress, California 90630

Arnold Schwarzenegger
Governor

2009 DEC 18 PM 4:15
CITY OF SAN BERNARDINO

December 16, 2009

Mr. Jeffrey Smith, AICP
Senior Urban Planner
City of San Bernardino
Economic Development Agency
201 North E Street, Suite 301
San Bernardino, California 91401

NOTICE OF PREPARATION FOR A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE SAN BERNARDINO REDEVELOPMENT PROJECT AREA MERGER – AREA A PROJECT (SCH# 2009111089), SAN BERNARDINO COUNTY

Dear Mr. Smith:

The Department of Toxic Substances Control (DTSC) has received your submitted Notice of Preparation (NOP) for a Draft Environmental Impact Report (EIR) for the above-mentioned Project. The following project description is stated in your document: "The City of San Bernardino Economic Development Agency ("Agency") is proposing various redevelopment plan amendments and the merger of seven of the Agency's Redevelopment Project Areas, which encompass a total of 2,823 acres. The project Areas under consideration include Central City North, Southeast Industrial Park, Tri-City, South Valle, Meadowbrook/Central City, Central City East, and Central City South ("Project Areas"). The Agency is proposing a Merger, Amended, and Restated Redevelopment Plan for the Project Areas. The seven areas are generally located along the east side of Interstate 215 (I-215) from 8th Street to the Interstate 10 (I-10) interchange, and also along I-10 from the I-215 interchange to Mountain View Avenue. A portion of the Southeast Industrial park project Area is located west of the I-215 and the South Valle Project Area is located south of I-10. In addition, a portion of the Tri-City Project Area is located along Del Rosa Drive between Baseline and 6th Street. Currently, the seven Redevelopment Project Areas consist of many land uses, not all of which are being utilized to their highest and best use, but improving with the implementation of redevelopment projects. Although the proposed project would not modify existing land uses, the proposed project contains existing industrial, commercial, and public facility uses that may involve limited amounts of hazardous materials." DTSC has the following comments:

1) The EIR should identify the current or historic uses in the Project Areas that may have resulted in a release of hazardous wastes/substances, and any known or

potentially contaminated sites within the proposed Project Areas. For all identified sites, the EIR should evaluate whether conditions at the site may pose a threat to human health or the environment. Following are the databases of some of the pertinent regulatory agencies:

- National Priorities List (NPL): A list maintained by the United States Environmental Protection Agency (U.S.EPA).
- EnviroStor: A Database primarily used by the California Department of Toxic Substances Control, accessible through DTSC's website (see below).
- Resource Conservation and Recovery Information System (RCRIS): A database of RCRA facilities that is maintained by U.S. EPA.
- Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS): A database of CERCLA sites that is maintained by U.S.EPA.
- Solid Waste Information System (SWIS): A database provided by the California Integrated Waste Management Board which consists of both open as well as closed and inactive solid waste disposal facilities and transfer stations.
- Leaking Underground Storage Tanks (LUST) / Spills, Leaks, Investigations and Cleanups (SLIC): A list that is maintained by Regional Water Quality Control Boards.
- Local Counties and Cities maintain lists for hazardous substances cleanup sites and leaking underground storage tanks.
- The United States Army Corps of Engineers, 911 Wilshire Boulevard, Los Angeles, California, 90017, (213) 452-3908, maintains a list of Formerly Used Defense Sites (FUDS).

2) The EIR should identify the mechanism to initiate any required investigation and/or remediation for any site that may be contaminated, and the government agency to provide appropriate regulatory oversight. If necessary, DTSC would require an oversight agreement in order to review such documents. Please see comment No. 11 below for more information.

3) All environmental investigations, sampling and/or remediation for the site should be conducted under a Workplan approved and overseen by a regulatory agency that has jurisdiction to oversee hazardous substance cleanup. The findings of any investigations, including any Phase I or II Environmental Site Assessment

Investigations should be summarized in the document. All sampling results in which hazardous substances were found should be clearly summarized in a table.

4) Proper investigation, sampling and remedial actions overseen by the respective regulatory agencies, if necessary, should be conducted in the Project Areas prior to the new development or any construction. All closure, certification or remediation approval reports by these agencies should be included in the EIR.

5) If buildings or other structures, asphalt or concrete-paved surface areas are being planned to be demolished, an investigation should be conducted for the presence of other related hazardous chemicals, lead-based paints or products, mercury, and asbestos containing materials (ACMs). If other hazardous chemicals, lead-based paints or products, mercury or ACMs are identified, proper precautions should be taken during demolition activities. Additionally, the contaminants should be remediated in compliance with California environmental regulations and policies.

6) Project construction may require soil excavation or filling in certain areas. Sampling may be required. If soil is contaminated, it must be properly disposed and not simply placed in another location onsite. Land Disposal Restrictions (LDRs) may be applicable to such soils. Also, if the project proposes to import soil to backfill the areas excavated, sampling should be conducted to ensure that the imported soil is free of contamination.

7) Human health and the environment of sensitive receptors should be protected during construction or demolition activities. If it is found necessary, a site investigation and a health risk assessment overseen and approved by the appropriate government agency and a qualified health risk assessor should be conducted to determine if there are, have been, or will be, any releases of hazardous materials that may pose a risk to human health or the environment.

8) If it is determined that hazardous wastes are, or will be, generated by the proposed operations, the wastes must be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.5). If it is determined that hazardous wastes will be generated, the facility should also obtain a United States Environmental Protection Agency Identification Number by contacting (800) 618-6942. Certain hazardous waste treatment processes or hazardous materials, handling, storage or uses may require authorization from the local Certified Unified Program Agency (CUPA). Information about the requirement for authorization can be obtained by contacting your local CUPA.

9) If during construction/demolition of the project, the soil and/or groundwater contamination is suspected, construction/demolition in the area should cease and appropriate health and safety procedures should be implemented.

10) If the site was used for agricultural, livestock or related activities, onsite soils and groundwater might contain pesticides, agricultural chemical, organic waste or other related residue. Proper investigation, and remedial actions, if necessary, should be conducted under the oversight of and approved by a government agency at the site prior to construction of the project.

11) DTSC can provide guidance for cleanup oversight through an Environmental Oversight Agreement (EOA) for government agencies that are not responsible parties, or a Voluntary Cleanup Agreement (VCA) for private parties. For additional information on the EOA or VCA, please see www.dtsc.ca.gov/SiteCleanup/Brownfields, or contact Ms. Maryam Tasnif-Abbasi, DTSC's Voluntary Cleanup Coordinator, at (714) 484-5489.

12) In future CEQA documents, please provide your e-mail address, so DTSC can send you comments both electronically and by mail.

If you have any questions regarding this letter, please contact Mr. Rafiq Ahmed, Project Manager, at rahmed@dtsc.ca.gov or by phone at (714) 484-5491.

Sincerely,

Greg Holmes
Unit Chief
Brownfields and Environmental Restoration Program - Cypress Office

cc: Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044
state.clearinghouse@opr.ca.gov

CEQA Tracking Center
Department of Toxic Substances Control
Office of Environmental Planning and Analysis
1001 I Street, 22nd Floor, M.S. 22-2
Sacramento, California 95814
nritter@dtsc.ca.gov

CEQA# 2737

STATE OF CALIFORNIA ARNOLD SCHWARZENEGGER, *Governor*

PUBLIC UTILITIES COMMISSION
320 WEST 4TH STREET, SUITE 500
LOS ANGELES, CA 90013

RECEIVED BY
REDEVELOPMENT AGENCY
2009 DEC 21 PM 2 05
CITY OF SAN BERNARDINO

December 18, 2009

Jeffrey Smith
City of San Bernardino-Economic Development Agency
201 North E Street, Suite 301
San Bernardino, CA 92401

Dear Mr. Smith:

Re: SCH# 2009111089; San Bernardino Redevelopment Project Area Merger -Area 2

The California Public Utilities Commission (Commission) has jurisdiction over the safety of highway-rail crossings (crossings) in California. The California Public Utilities Code requires Commission approval for the construction or alteration of crossings and grants the Commission exclusive power on the design, alteration, and closure of crossings.

The Commission's Rail Crossings Engineering Section (RCES) is in receipt of the *Notice of Completion & Environmental Document Transmittal-Notice of Preparation* from the State Clearinghouse for the project. As the state agency responsible for rail safety within California, we recommend that the City add language to the redevelopment plan so that any future planned development adjacent to or near the railroad right-of-way be planned with the safety of the rail corridor in mind. New developments may increase traffic volumes not only on streets and at intersections, but also at nearby at-grade highway-rail crossings. This includes considering pedestrian circulation patterns/destinations with respect to railroad right-of-way.

Mitigation measures to consider include, but are not limited to, the planning for grade separations for major thoroughfares, improvements to existing at-grade highway-rail crossings due to increase in traffic volumes and continuous vandal resistant fencing or other appropriate barriers to limit the access of trespassers onto the railroad right-of-way.

Language should be in place so that any traffic impact studies undertaken should also address traffic increase impacts over affected crossings and associated proposed mitigation measures.

If you have any questions, please contact Bill Lay, Utilities Engineer at 213-576-1399, bll@cpuc.ca.gov, or me at rxm@cpuc.ca.gov, 213-576-7078.

Sincerely,

Rosa Muñoz, PE
Utilities Engineer
Rail Crossings Engineering Section
Consumer Protection & Safety Division

City of HIGHLAND Inc. 1987

RECEIVED BY
DEVELOPMENT AGENCY
2010 JAN 4 PM 1 52
CITY OF SAN BERNARDINO

December 16, 2009

27215 Base Line
Highland, CA 92346
(909) 864-6861
FAX (909) 862-3180
www.ci.highland.ca.us

City Council

Mayor
Penny Lilburn

Mayor Pro-Tem
Ross B. Jones

Larry McCallon
Jody Scott
John P. Timmer

City Manager
Joseph A. Hughes

Redevelopment Agency
City of San Bernardino
Attn: Jeffrey Smith
201 North "E" Street, Suite 301
San Bernardino, CA 92401

Subject: Notice of Preparation/Initial Study – Draft Environmental Impact Report for various redevelopment plan amendments and the merger of seven of the Agency's Project Areas
(San Bernardino Redevelopment Project Area Merger – Area A)

Dear Jeffrey:

The City of Highland has completed its review of the subject Initial Study and has no comments at this time.

Please provide the City of Highland with a complete Draft Environmental Impact Report when it is ready for public review.

The City appreciates the opportunity to participate in your Planning/CEQA process.

Should you have questions, please contact me at (909) 864-8732, Ext. 215.

Sincerely,

Lawrence A. Mainez
City Planner

cc: Joseph A. Hughes, City Manager
John Jaquess, Community Development Director

From: Gloria Anderson [mailto:glorand@juno.com]
Sent: Tuesday, December 22, 2009 4:05 PM
To: Jeff Smith
Subject: Public Comment on EIR - Area A Project

LEAGUE OF WOMEN VOTERS OF SAN BERNARDINO

December 22, 2009

Commentor: Gloria Anderson, President

568 N. Mountain View

San Bernardino, CA 92401

909-338-4163 (Home)

Comments:

In general, we are interested in how the project will be an improvement over what is currently being done in the seven project areas and we are concerned about the impacts it will have on the environment.

Public Participation There should be a public participation program to inform residents of the plans being made and to give them opportunities for input throughout the process.

Cumulative Effects: What will the overall effect of the project be and how will adverse effects be mitigated? How will that affect the feasibility of the project?

Housing: How much impact will there be on the existing housing and how many people could be displaced by the project?

Planning: How does the project fit into the planning goals/objectives of the City? the area?

APPENDIX C
PUBLIC SERVICE AND UTILITY CORRESPONDENCE

CITY OF
San Bernardino
SM

POLICE DEPARTMENT
KEITH L. KILMER - CHIEF OF POLICE

P.O. Box 1559 • San Bernardino • CA 92402-1559
909.384.5742
www.sbcity.org

RECEIVED
DEC 18 2009
RBF Consulting

December 16, 2009

Brian Allee, Project Planner
RBF Consulting
P.O. Box 57057
Irvine, CA 92619-7057

Dear Mr. Allee:

In an effort to assist you with the Environmental Impact Report request made of the San Bernardino Police Department, I have completed the survey with the information that you requested. Please see the attached document for the information regarding your request.

If you have need of any further information, please do not hesitate to contact me at the San Bernardino Police Department (909) 384-5603.

Very truly yours,

KEITH KILMER, CHIEF OF POLICE

Mark A. Garcia
Assistant Chief of Police

cgr

Attachment

POLICE PROTECTION SERVICES QUESTIONNAIRE

SAN BERNARDINO REDEVELOPMENT PROJECT AREA MERGER – AREA A ENVIRONMENTAL IMPACT REPORT

Please respond to the following questions on agency letterhead and provide a map if necessary. In your response, provide as much information as possible (necessary to evaluate potential impacts).

1. Does your agency have an established target response time? What is the current actual response time to the Project Area? The San Bernardino Police Dept. has established the target response time for emergency calls within all areas within the city limits. The target reponse time for emergency calls is six minutes or less, which is consistent with industry standards. Our most recent report shows that the average response time is 5.62 minutes for emergency calls.

2. Does your agency have an established target staffing level (i.e. personnel/population)? The San Bernardino Police Dept. does not have an established staffing level based on personnel per population. The SBPD is authorized 350 sworn police officers, which is adequate to police the city limits. The PD's staffing levels are based on service models not on population.

3. Are current staff levels and facilities adequate or deficient? Current staff levels and facilities are adequate to meet the needs of the San Bernardino city residents.

4. Please indicate any assessment fees required for new developments. Developmental impact fees are assessed on new developments. This information can be attained through City Hall, Planning Department.

5. Do you anticipate any significant impacts associated with the proposed Project on current service within the City, such as increasing service calls or the need for additional personnel or patrol cars? Please provide generation factors if it is determined that additional personnel or patrol cars are required. This is unknown, as a determination regarding this information would have to be assessed based on types of businesses or development being developed and on increases of population - increases within the development area.

6. Are there any plans for facility expansion or new facilities, please provide as much detail as possible. Where does your agency acquire funding for new facilities? The P.D. is currently looking at expansion in various parts of the city for both P.D. substations and training facilities. The issue of funding has not been determined.

7. Do you anticipate that implementation of the proposed Project would result in the need for physical additions to your agency (i.e., construction of new police stations)? This question's answer cannot be determined until further information regarding redevelopment is acquired, such as increases of population, types of businesses and services offered.

8. Is there any other relevant information regarding significant impacts?

No.

9. Please indicate the location of the City jail(s).

710 North D Street, San Bernardino, CA 92401

10. Please include any additional information you feel is pertinent to the Environmental Impact Report analysis for the San Bernardino Redevelopment Project Area Merger – Area A.

FIRE PROTECTION SERVICES QUESTIONNAIRE

SAN BERNARDINO REDEVELOPMENT PROJECT AREA MERGER – AREA A ENVIRONMENTAL IMPACT REPORT

Please respond to the following questions on agency letterhead and provide a map if necessary. In your response, provide as much information as possible (necessary to evaluate potential impacts).

1. Please indicate the name and location of the fire station(s) that serve the Project Area. Also, please indicate the equipment, personnel and emergency medical services available at each station.

   STATIONS 221, 222, 230, 231

2. Does your agency have mutual aid agreements?

   YES

3. Does your agency have an established target response time? What is the current actual response time to the Project Area from each station?

   TARGET RESPONSE TIME IS 5 MINUTES OR LESS ON 90% OF THE CALLS FOR SERVICE. TIME STARTS WHEN RESPONDING UNIT LEAVES THE FIRE STATION AND STOPS WHEN THEY ARRIVE ON SCENE.

4. Does your agency have an established target staffing level (i.e. personnel/population)? CONSTANT STAFFING

   48 F.F., 2 CHIEF OFFICERS 24/7

5. Are current staff levels and facilities adequate or deficient?

   ADEQUATE

6. Please indicate any assessment fees required for new developments.

   Contact San Bernardino Development Services.

7. Do you anticipate that required fees and taxes provided by new developments associated with the proposed Project will adequately mitigate the expected increase in fire and emergency medical service demand?

   Yes

8. Do you have any required or recommended mitigation measures for significant impacts?

Depending on call load analysis additional personnel and station locations may need to be addressed.

9. Please indicate the present ISO rates throughout the City and any fire hazard impacts. Will the ISO rating remain the same with the implementation of the proposed Project?

Present rate 3.
Rating will likely remain the same.

10. Please indicate fire flow requirements based on land use types in the Project Area (i.e. residential, office/commercial, and industrial).

residential minimum – 1000 gpm/20 psi
commercial/office – 1500 gpm/20 psi Min. & ↑
industrial – 2000 gpm/20 psi Min. & ↑

11. Are there any plans for facility expansion or new facilities, please provide as much detail as possible. Where does your agency acquire funding for new facilities?

No plans at this time.
City funds.

12. Do you anticipate that project implementation would result in the need for physical additions to your agency (i.e., construction of new fire stations)?

No

13. Is there any other relevant information regarding potential significant impacts?

PROJECT MAY INCREASE CALL VOLUME, WHICH COULD LEAD TO THE NEED FOR ADDITIONAL UNITS BEING PLACED IN SERVICE AND STAFFED

14. Please include any additional information you feel is pertinent to the Environmental Impact Report analysis for the San Bernardino Redevelopment Project Area Merger – Area A.

Brian Allee - RE: San Bernardino Redevelopment Project

From: Lennox_Ro <Lennox_Ro@sbcity.org>
To: 'Brian Allee' <BALLEE@rbf.com>
Date: 3/31/2010 9:14 AM
Subject: RE: San Bernardino Redevelopment Project

Brian,

Apologies for the delay. It was difficult to find the time and the work that was done by our previous intern on this. Answers are below. Thanks

1. 5th Street Senior Center, Located at 600 W 5th Street, San Bernardino, Approx 13,000 sq. ft.

2. Yes however minimal, based on the consolidation of seven proposed areas, the project construction and infrastructure improvements would impact population, housing, public service and this recreation facility

3. If development of the project area is to interrupt service or access to the programming and facility, the matching projected fee revenues would need to collected to offset operational expenses. Programs and Services at this site are subsidized by city general fund and cost recovery from user fees is minimal.

4. Ensure that development in the project area does not disrupt operations at the site or access to the site. This shall include public transportation routes to remain in tact as the majority of patrons to the facility gain access by bus lines and pedestrian side walks versus personal vehicles.

5. Yes, environmental hazards such as noise, debris and construction equipment may pose an impact as most patrons to the facility and in the area are seniors 55 and older with acute sensitivity to these hazards. Development contractors should be vigilant in proper handling, storage and disposal of hazardous and regulated materials as well as strict construction/operations schedules.

6. If there is a proposal to develop parcels in the project area into residential and rental zoned use then new and additional open parks space is suggested to accommodate the increase in population saturation. Similarly, if development of commercial and retail use results, additional open parks space is suggested to accommodate increased diverse residential traffic in the area.

Robert Lennox
Deputy Director

City of San Bernardino
Parks, Recreation & Community Services Department
vc (909) 384-5031
fx (909) 384-5160

From: Brian Allee [mailto:BALLEE@rbf.com]
Sent: Monday, February 22, 2010 11:02 AM
To: Lennox_Ro
Subject: RE: San Bernardino Redevelopment Project

SCHOOL FACILITIES QUESTIONNAIRE

SAN BERNARDINO REDEVELOPMENT PROJECT AREA
MERGER – AREA A
ENVIRONMENTAL IMPACT REPORT

Answers:

1. & 2. Please identify the school facilities that serve the residents of the Project Area. Please provide the current enrollment and school capacity of each school that serves the Project Area:

Burbank ES
198 W. Mill St.
San Bernardino 92408
Current Enrollment: 394
Capacity: 474

Juanita Blakely Jones ES
700 N. F St.
San Bernardino 92410
Current Enrollment: 480
Capacity: 710

Lytle Creek ES
275 S. K St.
San Bernardino 92410
Current Enrollment: 778
Capacity: 753

Monterey ES
794 Monterey St.
San Bernardino 92410
Current Enrollment: 748
Capacity: 677

E. Neal Roberts ES
494 E. 9th St.
San Bernardino 92410
Current Enrollment: 683
Capacity: 804

Urbita ES
771 S. J St.
San Bernardino 92410

Current Enrollment: 406
Capacity: 388

Bing Wong ES
1250 E. 9th St
San Bernardino 92410
Current Enrollment: 674
Capacity: 835

Arrowview MS
2299 N. G St.
San Bernardino 92405
Current Enrollment: 1155
Capacity: 1540

Curtis MS
1050 N. Del Rosa Dr.
San Bernardino 92410
Current Enrollment: 995
Capacity: 1271

Pacific HS
1020 Pacific St.
San Bernardino 92404
Current Enrollment: 2253
Capacity: 2575

San Bernardino HS
1750 N. E St.
San Bernardino 92405
Current Enrollment: 2257
Capacity: 2660

San Gorgonio HS
2299 Pacific St.
San Bernardino 92404
Current Enrollment: 2948
Capacity: 3073

3. Are there any plans for facility expansion or new facilities, please provide as much detail as possible. Where does your school district acquire funding for new facilities?

There is one project planned and currently under construction in the redevelopment area. This is the New High School #8, located on the west side of Del Rosa Dr. between 6th St. and 9th St.

This project will serve grades 9-12, will have a capacity of approximately 2700 students, and is scheduled to be completed by October 2011 to open for the 2012-13 school year.

Funding for District capital improvement projects primarily comes from a mixture of State bond funds, local general obligation bond funds, and developer fees.

4. Are there fees assessed against new developments for school related services? Yes. If so, what is the amount of developer fees assessed?

For residential construction, the District currently implements the Level 2 fee which is $5.40 per square foot. The commercial/industrial fee is $0.47 per square foot.

5. What is the generation rate used by the District to predict future population growth?

Single Family Detached Units:

K-5	0.3310
6-8	0.1695
9-12	0.1933

Single Family Atttached and Multi-Family Units

K-5	0.4200
6-8	0.1300
9-12	0.2200

6. Does your school district anticipate being able to accommodate for the population that may be generated by the proposed Project?

The EIR summary supplied with this questionnaire did not include specific information regarding the number and type of housing units proposed to be constructed, if any. Therefore, the District does not have the information required to answer this question.

7. Please provide any additional comments that would pertain to impacts associated with the San Bernardino Redevelopment Project Area Merger – Area A.

SAN BERNARDINO COMMUNITY COLLEGE DISTRICT

114 South Del Rosa Drive • San Bernardino, CA 92408 • Phone (909)382-4000

SCHOOL FACILITIES QUESTIONNAIRE

SAN BERNARDINO REDEVELOPMENT PROJECT AREA MERGER - AREA A ENVIRONMENTAL IMPACT REPORT

Please respond to the following questions on agency letterhead and provide a map if necessary. In your response, provide as much information as possible (necessary to evaluate potential impacts).

1. Please identify the school facilities that serve the residents of the Project Area.

   Crafton Hills College and San Bernardino Valley College provide higher education services.

2. Please provide the current enrollment and school capacity of each school that serves the Project Area.

   Enrollment at Crafton Hills College was approximately 6,000 in Fall 2009. Enrollment at San Bernardino Valley College was approximately 13,000 in Fall 2009. Additional facilities will be developed at Crafton Hills College to accommodate projected increases in enrollment. Adequate capacity is available at San Bernardino Valley College.

3. Are there any plans for facility expansion or new. facilities, please provide as much detail as possible. Where does your school district acquire funding for new facilities?

   The San Bernardino Community College District uses both State funds and local bond funds to construct new facilities and remodel existing facilities.

4. Are fees assessed against new developments for school-related services? If so, what is the amount of developer fees assessed?

   Two general obligation bonds were passed by voters within the District.

5. What is the generation rate used by the district to predict future population growth?

   Growth rates are based on statewide estimates and on the availability of State funds to accommodate growth.

6. Does your school district anticipate being able to accommodate for the population that may be generated by the proposed Project?

   The ability to accommodate enrollment growth depends considerably on available funding.

7. Please provide any additional comments that would pertain to impacts associated with the San Bernardino Redevelopment Project Area Merger – Area A.

RECEIVED
FEB 13 2010
RBF Consulting

PUBLIC SERVICES DEPARTMENT
RANDY KUETTLE - ACTING DIRECTOR

300 North "D" Street • San Bernardino • CA 92418-0001
909.384.5140 • Fax: 909.384.5190
www.sbcity.org

February 11, 2010

RBF Consulting
14725 Alton Parkway
Irvine, Ca 92618
Phone: (949) 855-5783
Fax: (949) 837-4122

RE: San Bernardino Redevelopment Project Area Merger- Area A

Dear Mr. Brian Allee:

Below are the responses to your questions submitted on February 4, 2010:

1. The following landfills are presently used in disposal of solid waste from the Project Area vicinity and the respective closure date. Additional information is attached in Exhibit 1, 2, and 3.

Colton Sanitary Landfill – October 2014
Mid-Valley Sanitary Landfill – April 2033
San Timoteo Sanitary Landfill – May 2016

http://www.ciwmb.ca.gov/Profiles/Juris/JurProfile1.asp?RG=C&JURID=426&JUR=San+Bernardino

2. The estimated solid waste generation based upon the information provided listed below, additional information is attached in Exhibit 4.

Households: 5.6 pounds/person/day

Business Type	% in San Bernardino	Tons/Yr
Services-Medical / Health	16.7%	12,327
Retail Trade-Restaurants	16.5%	12,143
Retail Trade-Other	8.5%	6,280
Services-Education	7.8%	5,716

3. Solid Waste Pick-up service will be available for this project.

4. The anticipated impacts of this project will be expanded refuse and recycling routes upon established businesses being built and located in said area.

5. There are no required or recommended mitigation measures known at this time.

6. There is no other relevant information regarding significant project impacts.

7. The local statue for this area is the City has exclusive jurisdiction for all refuse and waste in the City.

Please contact me if you have any questions or need any additional information.

Sincerely,

Deborah Allen

Deborah Allen
Environmental Projects Manager
Integrated Waste Management Division
Phone: (909) 384-5549
Email: allen_de@sbcity.org

Exhibit 1

CalRecycle

Active Landfills Profile for Colton Sanitary Landfill (36-AA-0051)

Overview | Operations | Financial | Contacts | Map

Profiles Home | Overview Profile | New Landfill | Help

General Information

Jurisdiction:	Colton
County:	San Bernardino
Size:	14.0 Sq./Miles
Geographic Area:	Southern California
Rural/Urban:	Urban
LEA:	County of San Bernardino
Board Action (Recent Agenda Item)	Search by Name Search by Swis Number

State Representatives

2 Senate District(s) More...

Dutton, Robert (R)	Senate District 31
McLeod, Gloria Negrete (D)	Senate District 32

2 Assembly District(s) More...

Carter, Wilmer Amina (D)	Assembly District 62
Emmerson, Bill (R)	Assembly District 63

Site Information (More)

Latitude:	34.04538	Longitude:	-117.34590
Name:	Colton Sanitary Landfill		
Location:	850 Tropica Rancho Road Colton CA, 92324		
Telephone:	(909) 386-8735		

U.S. EPA Facility Registration System ID: 110017973157

Operator(s)

County of San Bernardino S.W. Mgt Div
Nancy Sansonetti - Planning Chief
222 West Hospitality Lane, 2nd Floor San Bernardino, CA 92415

Phone: (909) 386-8735 Fax: (909) 386-8900

Email: SolidWaste@swm.sbcounty.gov

Owners(s)

County of San Bernardino S.W. Mgt Div
Nancy Sansonetti - Planning Chief
222 West Hospitality Lane, 2nd Floor San Bernardino, CA 92415

Phone: (909) 386-8735 Fax: (909) 386-8900

Permit Information

Permit Type:	Solid Waste Facility
Permit Status:	Permitted
Operational Status:	Active
Permitted Maximum Disposal:	3,100 Tons/day
CIWMB Board Concurrence Date:	2/2000
Next Permit Review Date:	2/2010
Permitted Site Area:	98
Permitted Disposal Area:	82

Associated Facilites

No Associated Facilites

Capacity Information (2000) (Closure Date: 10/20/2014)

Total Estimated Permitted Capacity:	Total Estimated Capacity Used:		Remaining Estimated Capacity:	
13,297,000 (cubic yards)	12,687,000 (cubic yards)	95.4%	610,000 (cubic yards)	4.6%

Surrounding Land Use (Adjacent to facility as noted during inspections)

Agricultural

Commercial

Statewide Tipping Fee Information (Per Ton) (Survey 2000)

	MSW	Tires	Green Waste	C&D
Lowest	$2.50	$42.00	$0.45	$5.00

Exhibit 2

CalRecycle

Active Landfills Profile for Mid-Valley Sanitary Landfill (36-AA-0055)

Overview | Operations | Financial | Contacts | Map

Profiles Home | Overview Profile | New Landfill | Help

General Information

Jurisdiction:	Rialto
County:	San Bernardino
Size:	21.0 Sq./Miles
Geographic Area:	Southern California
Rural/Urban:	Urban
LEA:	County of San Bernardino
Board Action (Recent Agenda Item)	Search by Name Search by Swis Number

State Representatives

1 Senate District(s) More...

McLeod, Gloria Negrete (D) — Senate District 32

2 Assembly District(s) More...

Carter, Wilmer Amina (D) — Assembly District 62

Emmerson, Bill (R) — Assembly District 63

Site Information (More)

Latitude:	34.14328	Longitude:	-117.42752
Name:	Mid-Valley Sanitary Landfill		
Location:	2390 N. Alder Avenue Rialto CA, 92377		
Telephone:	(909) 386-8735		

U.S. EPA Facility Registration System ID: 110017972906

Operator(s)

County of San Bernardino S.W. Mgt Div
Nancy Sansonetti - Planning Chief
222 West Hospitality Lane, 2nd Floor San Bernardino, CA 92415

Phone: (909) 386-8735 Fax: (909) 386-8900

Email: SolidWaste@swm.sbcounty.gov

Owners(s)

County of San Bernardino S.W. Mgt Div
Nancy Sansonetti - Planning Chief
222 West Hospitality Lane, 2nd Floor San Bernardino, CA 92415

Phone: (909) 386-8735 Fax: (909) 386-8900

Permit Information

Permit Type:	Solid Waste Facility
Permit Status:	Permitted
Operational Status:	Active
Permitted Maximum Disposal:	7,500 Tons/day
CIWMB Board Concurrence Date:	1/2010
Next Permit Review Date:	N/R
Permitted Site Area:	498
Permitted Disposal Area:	408

Associated Facilites

No Associated Facilites

Capacity Information (2000) (Closure Date: 4/1/2033)

Total Estimated Permitted Capacity:	Total Estimated Capacity Used:		Remaining Estimated Capacity:	
101,300,000 (cubic yards)	100,630,000 (cubic yards)	99.3%	670,000 (cubic yards)	0.7%

Surrounding Land Use (Adjacent to facility as noted during inspections)

Commercial

Desert

Statewide Tipping Fee Information (Per Ton) (Survey 2000)

	MSW	Tires	Green Waste	C&D
Lowest	$2.50	$42.00	$0.45	$5.00

Exhibit 3

CalRecycle

Active Landfills Profile for San Timoteo Sanitary Landfill (36-AA-0087)

Overview | Operations | Financial | Contacts | Map

Profiles Home | Overview Profile | New Landfill | Help

General Information

Jurisdiction:	San Bernardino-Unincorporated County
County:	San Bernardino
Size:	19,455.0 Sq./Miles
Geographic Area:	Southern California
Rural/Urban:	Urban
LEA:	County of San Bernardino
Board Action (Recent Agenda Item)	Search by Name Search by Swis Number

State Representatives

2 Senate District(s) More...

Benoit, John J. (R)	Senate District 37
Dutton, Robert (R)	Senate District 31

2 Assembly District(s) More...

Cook, Paul (R)	Assembly District 65
Emmerson, Bill (R)	Assembly District 63

Site Information (More)

Latitude:	34.01283	Longitude:	-117.21477
Name:	San Timoteo Sanitary Landfill		
Location:	San Timoteo Canyon Road Redlands CA, 92373		
Telephone:	(909) 386-8735		

U.S. EPA Facility Registration System ID: 110017972755

Operator(s)

County of San Bernardino S.W. Mgt Div
Nancy Sansonetti - Planning Chief
222 West Hospitality Lane, 2nd Floor San Bernardino, CA 92415

Phone: (909) 386-8735 Fax: (909) 386-8900

Email: SolidWaste@swm.sbcounty.gov

Owners(s)

N/R

Permit Information

Permit Type:	Solid Waste Facility
Permit Status:	Permitted
Operational Status:	Active
Permitted Maximum Disposal:	1,000 Tons/day
CIWMB Board Concurrence Date:	8/2002
Next Permit Review Date:	7/2012
Permitted Site Area:	366
Permitted Disposal Area:	127

Associated Facilites

No Associated Facilites

Capacity Information (2000) (Closure Date: 5/1/2016)

Total Estimated Permitted Capacity:	Total Estimated Capacity Used:		Remaining Estimated Capacity:	
20,400,000 (cubic yards)	10,908,837 (cubic yards)	53.5%	9,491,163 (cubic yards)	46.5%

Surrounding Land Use (Adjacent to facility as noted during inspections)

Commercial

Desert

Open Space - Irrigated

Statewide Tipping Fee Information (Per Ton) (Survey 2000)

	MSW	Tires	Green Waste	C&D
Lowest	$2.50	$42.00	$0.45	$5.00
Highest	$85.30	$280.00	$85.30	$83.00

Exhibit 4

CalRecycle

Jurisdiction Profile for City of San Bernardino

Overview | Waste Flows | Planning | Assistance | Contacts | Map

Profiles Home | Overview Profile | New Jurisdiction | Help

General Information

Jurisdiction:	San Bernardino
County:	San Bernardino
Size:	55.0 Sq./Miles
Geographic Area:	Southern California
Rural/Urban:	Urban
(L)EA:	CIWMB

State Representatives

3 Senate District(s) More...

Dutton, Robert (R)	Senate District 31
McLeod, Gloria Negrete (D)	Senate District 32
Runner, George (R)	Senate District 17

5 Assembly District(s) More...

Adams, Anthony (R)	Assembly District 59
Carter, Wilmer Amina (D)	Assembly District 62
Cook, Paul (R)	Assembly District 65
Emmerson, Bill (R)	Assembly District 63
Torres, Norma J. (D)	Assembly District 61

US Senate Information | US Representative Information

County Information | City Information

Household Materials Generators (2004)

	Amount	Rank (of 530)
Population:	186,400	27
Population Density:	3,389 /sq mile	
Single Family Units:	38,893	33
Multi-Family Units:	20,831	31
Mobile Home Units:	4,676	26

Business Materials Generators

Taxable Sales (2000):	$2,349,850,000
Employment (2000):	57,697
Businesses (2000):	4,696

Household Materials Collection

Data not available

Business Materials Collection

Commercial On-Site Recyclable Pickup: No

Commercial On-Site Greenwaste Pickup: No

Top 4 Specific Materials in Household Disposal
(Based on 1999 Statewide Estimates)

Specific Material Type	%	Tons
Food	20.0%	15,248
Leaves and Grass	10.5%	7,991
Remainder/Composite Organic	9.5%	7,226
Remainder/Composite Paper	8.1%	6,144

More...

Top 4 Specific Materials in Business Disposal
(Based on 1999 Statewide Estimates)

Specific Material Type	%	Tons/Yr
Food	18.7%	14,190
Remainder/Composite Paper	11.6%	8,854
Uncoated Corrugated Cardboard	6.4%	4,852
Leaves and Grass	5.8%	4,395

More...

Household Disposal by Overall Materials
(Based on 2000 Statewide Estimates)

Material General Category	%	Tons
Other Organic	45.0%	34,304
Paper	27.5%	20,927
Plastic	8.8%	6,744
Metal	4.6%	3,527

Business Disposal By General Material Category
(Based on 1999 Statewide Estimates)

Material Category	%	Tons
Paper	33.8%	25,725
Glass	2.7%	2,082
Metal	5.8%	4,391
Plastic	9.0%	6,844

Brian Allee - RE: San Bernardino

From: Allen_De <Allen_De@sbcity.org>
To: 'Brian Allee' <BALLEE@rbf.com>
Date: 3/31/2010 11:22 AM
Subject: RE: San Bernardino

http://www.calrecycle.ca.gov/Profiles/Juris/JurProfile1.asp?RG=C&JURID=426&JUR=San+Bernardino

Deborah Allen
Environmental Projects Manager
City of San Bernardino
allen_de@sbcity.org
(909) 384-5549 ext.3424

From: Brian Allee [mailto:BALLEE@rbf.com]
Sent: Wednesday, March 31, 2010 11:10 AM
To: Allen_De
Subject: RE: San Bernardino

Good morning again Mrs. Allen,

We are submitting early next week. Is there anyway you can help me track down the State generation factors? Thanks in advance!

Brian

Brian J. Allee
Project Planner/Environmental Analyst

RBF Consulting
14725 Alton Parkway
Irvine, CA 92618-2027
949.855.7069 (direct)
949.837.4122 (fax)

ballee@rbf.com

>>> Allen_De <Allen_De@sbcity.org> 3/29/2010 7:37 AM >>>

Good morning Brian,

Unfortunately, we do not have specific numbers for this region but rely on the State for this type of information.

Deborah Allen
Environmental Projects Manager
City of San Bernardino
allen_de@sbcity.org
(909) 384-5549 ext.3424

From: Brian Allee [mailto:BALLEE@rbf.com]
Sent: Friday, March 26, 2010 8:05 PM
To: Allen_De
Subject: San Bernardino
Importance: High

Good evening Mrs. Allen,

In regards to you questionnaire response on February 11th, 2010, titled San Bernardino Redevelopment Project Area Merger - Area A, you gave me 5.6 pounds/person/day for the household generation factors for solid waste.

Could you also give me the generation factors lbs/unit/day for commercial and industrial uses. The CIWMB website doesn't give any accurate figures. It only quotes figures from various sources throughout California over the years. Your assistance is greatly appreciated. Thanks in advance!

Brian

CITY OF SAN BERNARDINO
MUNICIPAL WATER DEPARTMENT

BOARD OF WATER COMMISSIONERS

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MATTHEW H. LITCHFIELD, P.E.
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JOHN A. CLAUS
Director of Water Reclamation
DON SHACKELFORD
Director of Finance
VALERIE HOUSEL
Director of Environmental &
Regulatory Compliance

"Trusted, Quality Service since 1905"

December 16, 2009

Mr. Brian Allee
Project Planner/Environmental Analyst
RBF Consulting
14725 Alton Parkway
Irvine, CA 92618-2027

Dear Mr. Allee:

RE: RESPONSE TO SAN BERNARDINO REDEVELOPMENT PROJECT AREA MERGER – AREA A ENVIRONMENTAL IMPACT REPORT (EPN 2009-009)

The San Bernardino Municipal Water Department (Department) received the letter indicating the preparation of an Environmental Impact Report (EIR) along with a questionnaire. The questionnaire included eight (8) questions in reference to the Department's water system and Redevelopment Project Area A; however, the background information provided with the project does not discuss any specific construction projects.

In accordance with our phone conversation on December 4, 2009, the Department previously sent a copy of its Water Facilities Master Plan (Master Plan) dated August 2007 to Rosenow Spevacek Group Inc. (RSG). The Master Plan contains sufficient information to address the majority of the questions; therefore, the Department will refer to the Master Plan in the attached response when appropriate.

The following is the Department's response to the Redevelopment Project Area Merger – Area A questionnaire (Area A):

1. The Department production capacity can be found in Section 4 of the Master Plan, more specifically Table 4-1. Area A is located within the Department's Lower Pressure Zone,

300 North "D" Street, San Bernardino, California 92418 P.O. Box 710, 92402 Phone: (909) 384-5141
FACSIMILE NUMBERS: Administration: (909) 384-5215 Engineering: (909) 384-5532 Customer Service: (909) 384-7211
Corporate Yards: (909) 384-5260 Water Reclamation Plant: (909) 384-5258

and the production data is broken down for each zone in Table 4-1. The Department production capacity for 2006-2008 is also provided below:

	2006	2007	2008
Production	57,391 ac-ft	59,594 ac-ft	57,237 ac-ft

2. The Department has provided information regarding unit flow factors and projected water demands in Section 3, Tables 3-2, 3-3, and 3-4 of the Master Plan. The Department has run a system evaluation to determine if the existing facilities can meet the current and projected water demands. The results are outlined in Section 6 of the Master Plan. The information provided discusses the merger of seven (7) existing redevelopment project areas and no specific construction projects. The Department cannot project future water demand for your project without additional project-specific data.

3. Please refer to Section 5 of the Master Plan for existing facilities within the Lower Pressure Zone. Section 5 addresses existing piping by size, type, and age. This section also shows existing pump stations, pressure regulating stations, storage reservoirs, and the locations for each. Section 5 of the Master Plan also includes a system hydraulic schematic included as Figure 5-1 for your review.

4. Please refer to Section 4 of the Master Plan for historical production data. The Department compiles water quality data collected annually and delivers a Consumer Confidence Report to our customers. The past six (6) years of Consumer Confidence Reports are available on the Department's web site located at:

   http://www.ci.sanbernardino.ca.us/sbmwd_residents/consumer_confidencereports.asp

   The California Department of Public Health (CDPH) requires monitoring of water production source locations and the distribution system. To date the Department's water quality data collected does not indicate any significant health concerns. With the information provided, the Department cannot predict the impacts on future groundwater quality.

5. Please refer to Section 6 of the Master Plan to review the Department's evaluation of the water system distribution facilities and the ability to meet current and projected water demands. Section 6.4.1 discusses the Lower Pressure Zone observations and identified deficiencies. With the information provided the Department cannot provide specific facility upgrades.

6. SB 610 requires a formal written request to the City Planner who in turn will notify the Department's General Manager in writing to start and complete the Water Supply Assessment (WSA) process within ninety (90) days. The request for a WSA must meet the minimum requirements of the California Water Code, Section 10910 for the Department to proceed. The current 2005 Urban Water Management Plan (UWMP) contains projected water demands from 2005-2025. Projected water demands are based on current land uses and water billing data. The Department's 2005 UWMP can be located on the Department website at:

   http://www.ci.san-bernardino.ca.us/sbmwd_divisions/water_utility/engineering2005_urban_water_management_plan_.asp .

   No specific construction projects are identified for the Area A project, and therefore the Department cannot provide any additional demand information.

7. Please see Section 6, page 6-8 ("E") for the approximate gallon per minute (gpm) production capacity, and page 6-10 ("F") for the projected demand and the approximate additional supply capacity required to meet that demand. Section 6 discusses the evaluation of the water system distribution facilities and the ability to meet current and projected water demands. Pages 6-7 through 6-11 address the Lower Pressure Zone which covers the Area A project location.

8. The Department has provided the 2005 UWMP, 2007 Water Facilities Master Plan, and the Consumer Confidence Reports for the past 6 years to assist in the completion of the Environmental Impact Report for your project. The Department also provides all the Rules and Regulations approved by the Board of Water Commissioners on its website. Unless specific construction projects are identified, the Department has no further comments on the current project. The Department will provide further review as specific projects are identified.

If you have any further questions please contact me at (909) 384-5092 or e-mail me at Nevarez_mi@sbcitywater.org. Please reference EPN 2009-009 in any communications regarding this project.

Sincerely,

Michael Nevarez
Water Utility Engineer

MN:jmt

cc: Greg Gage, SBMWD Engineering Manager

\\Wuserver\@data\WUEngineering\C Drive Folders\Taylor, Joelle\Mike\RBF Questionnaire response.doc

Brian Allee - RE: San Bernardino Redevelopment Plan

From: Nevarez_Mi <Nevarez_Mi@sbcity.org>
To: 'Brian Allee' <BALLEE@rbf.com>
Date: 3/25/2010 12:53 PM
Subject: RE: San Bernardino Redevelopment Plan
Attachments: RBF Questionnaire response.doc

Brian,

Attached is a copy of the original letter as you requested. To answer your second question please visit our website and view the Department Water Facilities Master Plan Aug. 2007, section 3 Water Demands, table 3-2 Unit Flow Factors. I believe this table will have the numbers you are looking for and I have attached the web URL for the Water Facilities Master Plan below. Hope this helps.

http://www.ci.san-bernardino.ca.us/sbmwd_divisions/water_utility/engineering/water_facilities_master_plan___2007.asp

Thank you,

Michael Nevarez

Water Utility Engineer

San Bernardino Municipal Water Department

Nevarez_Mi@sbcitywater.org

(909)-384-5092

-----Original Message-----
From: Brian Allee [mailto:BALLEE@rbf.com]
Sent: Wednesday, March 24, 2010 5:57 PM
To: Nevarez_Mi
Subject: San Bernardino Redevelopment Plan
Importance: High

Good evening Mr. Nevarez,

I'm following up on our letter we sent and the response you sent me on December 19th, 2009 with the subject line "Response to San Bernardino Redevelopment Project Area Merger - Area A EIR". We never received Page 2 of that letter.

Also, could I get the generation factors to calculate water demand for the following land uses:

Residential (gpd/du)

Commercial (gpd/sf)

Industrial (gpd/sf)

This would be greatly appreciate! Thanks in advance.

Brian

Brian J. Allee
Project Planner/Environmental Analyst

RBF Consulting
14725 Alton Parkway
Irvine, CA 92618-2027
949.855.7069 (direct)
949.837.4122 (fax)
ballee@rbf.com

Brian Allee - RE: San Bernardino Redevelopment Plan

From: Nevarez_Mi <Nevarez_Mi@sbcity.org>
To: 'Brian Allee' <BALLEE@rbf.com>
Date: 3/25/2010 1:10 PM
Subject: RE: San Bernardino Redevelopment Plan

Brian,

Not sure I have this information, I will forward your question to someone I know at the water reclamation plant and see if they can direct you to the correct person and get back with you.

Thanks,

Michael Nevarez

Water Utility Engineer

San Bernardino Municipal Water Department

Nevarez_Mi@sbcitywater.org

(909)-384-5092

-----Original Message-----
From: Brian Allee [mailto:BALLEE@rbf.com]
Sent: Thursday, March 25, 2010 9:41 AM
To: Nevarez_Mi
Subject: Fwd: San Bernardino Redevelopment Plan
Importance: High

Good morning Mr. Nevarez,

Along with the generation factors for water demand, can I also get the generation factors for Wastewater within the City also in gpd per dwelling units for multiple family and per square footage for commercial (retail/office/lodging) and industrial? (just like my request for water on my previous email)?

Thanks in advance!

Brian Allee - RE: San Bernardino Redevelopment Plan

From: Nevarez_Mi <Nevarez_Mi@sbcity.org>
To: 'Brian Allee' <BALLEE@rbf.com>
Date: 3/25/2010 5:13 PM
Subject: RE: San Bernardino Redevelopment Plan
Attachments: Copy of 7Sewer Flow Guide.xls

Brian,

Here is the various flows for all sorts of business, retail, homes etc. Hope it helps.

Thanks,

Michael Nevarez

Water Utility Engineer

San Bernardino Municipal Water Department

Nevarez_Mi@sbcitywater.org

(909)-384-5092

-----Original Message-----
From: Brian Allee [mailto:BALLEE@rbf.com]
Sent: Thursday, March 25, 2010 9:41 AM
To: Nevarez_Mi
Subject: Fwd: San Bernardino Redevelopment Plan
Importance: High

Good morning Mr. Nevarez,

Along with the generation factors for water demand, can I also get the generation factors for Wastewater within the City also in gpd per dwelling units for multiple family and per square footage for commercial (retail/office/lodging) and industrial? (just like my request for water on my previous email)?

Thanks in advance!

CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT
SEWAGE FLOW GUIDE FOR DOMESTIC WASTE DISCHARGE

Calculation for commercial use:

Total gallons per day divided by 281 is equal to the number of equivalent dwelling units.

Type of Use	Estimated Sewage Flow, Gallons per Day
Apartments (4 or more units)	3/4 of EDU (210.75 gal)
Apartments (Senior Housing-studio apts. only)	135 per unit
Assembly/dance hall/community center	2 per seat (occupancy)
Auto service or gas station	.05 per sq. ft.
Auto/Truck washes	per equip. specs. times no. of vehicles
Ballpark restroom/concession	one EDU (281 per building)
Bowling alley (excluding food service)	75 per lane
Churches; with kitchen	2.5 per sanctuary seat (occupancy)
without kitchen	1.5 per sanctuary seat (occupancy)
with private school	add: 15 per student (occupancy)
Convenience store with take-out food service/kitchen	.15 per sq. ft.
Country club with food service/bar/lounge	50 per member
Detached out-building/storage/garage without plumbing	no fee
Dry cleaners; with laundry service	.023 per sq.ft., plus 2 x gal./cycle
Fire station	.0675 per sq.ft.
Fitness center / health club	.25 per sq.ft.
General occupancy	15 per person
Grocery stores; full service market or mini-market	.05 per sq. ft.
Hair salon	30 per station
Housing; single family	one EDU (281 gal)
Industrial; light manufacturing	.05 per sq. ft.
food processing	add: expected discharge from food preparation
heavy manufacturing	expected discharge from developer/applicant
Institution (resident)	100 per person (occupancy)
Laundromat; 12 lb. washer	65 per machine (2 x gal/per cycle)
25 lb. washer	95 per machine (2 x gal/per cycle)
40 lb. washer	110 per machine (2 x gal/per cycle)
Laundry (commercial)	expected discharge (per machine specs.)
Manager's office/quarters (motel, mini-storage, etc.)	210 each
Medical; patient care (hospital)	100 per bed
assisted care-senior housing	85 per bed
nursing/convalescent home	100 per bed
medical/outpatient care	.20 per sq. ft.
dental care	.15 per sq. ft.
Mini-storage (excl. manager apt./office) w/ plumbing	.005 per sq. ft.
Mini-storage without plumbing	no fee
Mobile home park	3/4 of EDU (210.75 gal)
Motels/hotels (excl. food service)	100 per room
Office building	.10 per sq. ft.
Restaurant; full service	25 per seat (occupancy)
fast food	15 per seat (occupancy)
take-out food (no seating)	50 per employee (min. 2 employees)
bar/lounge	15 per seat (occupancy)
undesignated food service/tenant lease	.30 per sq. ft.
Retail store (excl. food service/laundry)	.023 per sq. ft.
RV travel park	100 per space
RV dump station	50 per estimated vehicles per day
School; elementary	15 per student (occupancy)
middle/high school/college	20 per student (occupancy)
day care/nursery (full-day)	15 per child (occupancy)
day care/nursery (half-day)	7.5 per child (occupancy)
Swimming pool; private	included in housing project
public	5 per swimmer (occupancy)
Theater; movie	5 per seat (occupancy)
Warehouse (First 100,000 s.f.)(excluding office space)	.0100 per sq. ft.
Warehouse (Additional sq. ft. between 100,000 and 500,000)	.0050 per sq. ft.
Warehouse (Remaining sq. ft. over 500,000)	.0001 per sq. ft.

Eff. 3/1/2009

$3,500.00 / EDU

$12.45 / GPD

For uses not listed, sewage flow will be determined by the staff based on the information provided by the applicant, or by available information from the Uniform Plumbing Code.

APPENDIX D
BIOLOGICAL RESOURCES

Biological Resources Constraints Analysis for the San Bernardino Redevelopment Project Area Merger – Area A

USGS – Redlands Quadrangle 7.5 Minute Series Topographic
Township 1 South, Range 3 & 4 West
San Bernardino County, California

Prepared for:

City of San Bernardino
Economic Development Agency
201 North "E" Street, Suite 301
San Bernardino, CA 92401
Contact: Mr. Jeffrey Smith, AICP
909.663.1044

Prepared by:

Tom Dodson & Associates
2150 North Arrowhead Avenue
San Bernardino, California 92405
(909) 882-3612

CERTIFICATION: *"I hereby certify that the statements furnished herein and in the attached exhibits present the data and information required for this biological resources assessment, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Fieldwork conducted for this assessment was performed by me or under my direct supervision. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the project applicant or applicant's representative and that I have no financial interest in this project."*

Shay Lawrey
Ecologist / Regulatory Specialist

January 26, 2010

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1. Introduction

The City of San Bernardino Economic Development Agency (Agency) was formed to assist the City of San Bernardino (City) in the elimination of physical and social blight, as well as the creation of jobs, construction of affordable housing, and attraction of new businesses into the region. The first of the redevelopment project areas within this part of the City was adopted in 1958. Since then, many of the redevelopment project areas have been amended to adapt to the changing needs of the City.

The Agency is proposing various redevelopment plan amendments and the merger of seven of the Agency's Redevelopment Project Areas (Project Areas). The Project Areas under consideration include Central City North, Central City East, Central City Meadowbrook, Central City South, Tri City, South Valle, and Southeast Industrial Park. The Agency is proposing a Merged, Amended, and Restated Redevelopment Plan for the Project Areas. The Redevelopment Project Areas are currently surrounded by developed properties and have been deemed redevelopment areas based on their underutilization. Currently, the seven Redevelopment Project Areas consist of many land uses, not all of which are being utilized to their highest and best use, but which are improving with the implementation of redevelopment projects.

The proposed project is located in the central portion of the City of San Bernardino, San Bernardino County, California. The seven project areas are generally located along the east side of Interstate 215 (I-215) from 8th Street to the Interstate 10 (I-10) interchange, and also along I-10 from the I-215 interchange to Mountain View Avenue. A portion of the Southeast Industrial Park Project Area is located west of the I-215 and the South Valle Project Area is located south of I-10. In addition, a portion of the Tri-City Project Area is located along Del Rosa Drive between Baseline and 6th Street (Figures 1 and 2).

The majority of the redevelopment project areas encompass highly disturbed land with little habitat value for sensitive species. However, potential biological resource constraints have been identified in portions of each redevelopment area. In particular, each redevelopment area is bordered by and/or contains jurisdictional drainage features. Furthermore, the Santa Ana River is located within and/or adjacent to the Southeast Industrial Park redevelopment area. The Santa Ana River has high habitat value and is known to support a number of special status species. The purpose of this biological resources constraints analysis is to review the proposed project in sufficient detail to determine to what extent the proposed project may affect listed species (threatened or endangered) species proposed for listing, sensitive species of concern, or unique biological features such as sensitive habitat and surface channels.

A California Natural Diversity Data Base (CNDDB) search was conducted for the U.S. Geological Survey (USGS) – San Bernardino South and Redlands quadrangle, 7.5 Minute Series topographic maps. This resource provided baseline data regarding sensitive species occurrences within the Project Areas. A literature review was also conducted to examine data gathered from various biological surveys previously conducted in the vicinity of the Project Areas. No focused surveys for plant or animal species were conducted as part of this project. One reason for not conducting any field surveys is that no site specific development is proposed, so no specific locations need a survey at this time.

2. Description of Redevelopment Project Areas

2.1. Central City North

Central City North (adopted August 6, 1973) is a mixture of retail, commercial, restaurants, professional service uses, and single-family residences. This area is located east of the I-215 freeway near the San Bernardino Civic Center. Since its adoption, various developments have occurred within this area (i.e., senior housing facilities, main library branch, Stater Brothers Supermarket, and Social Security offices).

2.2. Central City Meadowbrook, Central City East, Central City South

- Central City/ Meadowbrook – Adopted September 21, 1958
- Central East – Adopted May 3, 1976
- Central City South – Adopted May 3, 1976

These three redevelopment project areas were merged in 1983, creating a total project area of 1,008 acres. Developments located within this area include various administrative offices for federal, state, county, and city departments; the 55-acre Seccombe Lake State Urban Park; and the 136-acre National Orange Show fairgrounds. In addition, this area includes the Court Street Square, which provides a site for public-oriented activities, the San Bernardino Stadium (home to the Inland Empire 66ers minor league baseball team), and the Carousel Mall.

2.3. Tri City

The Tri-City Plan (adopted June 20, 1983) is located in the southeast section of San Bernardino. This project area is divided into two subareas: Subarea I and Subarea II. Subarea I consists of 95 acres located west of Del Rosa Avenue and north of Sixth Street to Baseline, and is zoned for residential development. Apartment units occupy a 12-acre site, with the remainder of the land owned by the San Bernardino City Unified School District. Subarea II consists of 283 acres and is located east of Waterman Avenue, west of Tippecanoe Avenue, and north of the I-10 freeway. This area is occupied by the Tri-City Corporate Center, which is a mix of office, light industrial, retail, commercial, and a variety of restaurant uses.

2.4. South Valle

The South Valle redevelopment project area (adopted July 9, 1984) is located south of the I-10 freeway within the southern portion of the City. It is adjacent to the Commercenter area of the Southeast Industrial Park and Subarea II of the Tri-City redevelopment project areas. This redevelopment project area is characterized by a mixture of commercial, industrial, and residential developments adjacent to the I-10 and I-215 freeway interchange.

2.5. Southeast Industrial Park

Southeast Industrial Park (adopted June 21, 1976) is located in the southeast quadrant of the City, and is divided into two sections: the western area devoted primarily to commercial complexes and professional offices, and the eastern area zoned for light industrial. The 520-acre western Commercenter section, which is adjacent to the I-10 and I-215 freeway interchange, offers a mix of professional office complexes, a restaurant row, a hotel with convention facilities, and various motels, retail, commercial, and light industrial uses. West of the I-215 Freeway is the San Bernardino Auto Plaza and various auto-related businesses.

The 350-acre eastern industrial section is occupied by manufacturing- and distribution-related warehouse uses as well as vacant land available for development. This area is proximately located to the San Bernardino International Airport (formerly Norton Air Force Base). In addition, a portion of the land within this area is retained for flood control purposes adjacent to the Santa Ana River, which bisects a portion of this redevelopment project area.

3. Project Characteristics

The Agency proposes to merge the seven project areas listed above, which encompass a total of 2,823 acres, to remove barriers for funding new redevelopment projects with tax increment financing from other project areas within the City. The purpose for the merger of the Central City North, Central City East, Central City Meadowbrook, Central City South, Tri City, South Valle, and Southeast Industrial Park Redevelopment Project Areas is for financial purposes and to produce a merged, amended, and restated redevelopment plan to include capital improvement projects and related redevelopment planned for the project areas. As part of this proposal, the Tax Increment and Bond Cap will be increased within each of the Redevelopment Planning Areas. For the Central City North and Meadowbrook/Central City Redevelopment Planning Areas, the Agency proposes to place a 10-year extension over their current expiration dates.

4. Potential Biological Resources Constraints

The City of San Bernardino is surrounded by the National Forest to the north, the Cities of Highland to the east, Redlands to the southeast, Loma Linda to the South, Colton to the southwest, and Rialto to the west. Local climatic conditions in the City are characterized by warm summers, mild winters, infrequent rainfall, limited daytime on shore breezes and comfortable humidifies. Temperatures average about 63°F. Rainfall averages around 15 inches a year, with almost all rain falling between November and April. The Santa Ana River is the primary surface water resource located within the Project Areas. The Santa Ana River is the largest stream system in southern California that collects flows from the surrounding mountains and valley washes. The wildlife resources in the San Bernardino Valley are important due, in part, to the large numbers of certain rare and declining species. Neo-tropical migrant birds depend on deciduous trees and shrubs for foraging during migration. Mature trees provide numerous cavities for cavity-dependent wildlife and the tall trees are used by nesting raptors.

The proposed project includes the consolidation of seven redevelopment project areas into one area. Each area contains unique habitat features and as such, the potential biological resources constraints are discussed below for each of the seven redevelopment project areas.

4.1. Central City North

Town Creek (also known as Historic Warm Creek) crosses the northeast corner of Central City North. Surface evidence of this channel is difficult to find and follow in the Central City North redevelopment area. Within this particular redevelopment area, Town Creek does not contain habitat suitable of supporting any sensitive species. The remainder of Central City North is devoid of natural, native habitat. No listed species or species of special concern have the

potential to occur in the Central City North redevelopment area. There is potential habitat however, for perching, roosting, and/or nesting raptors.

4.2. Central City East

Seccombe Lake State Urban Park is located in the northeast quarter of Central City East. Although, this park is situated in a highly urbanized setting, it contains aquatic habitat and terrestrial habitat capable of supporting a variety of water fowl, songbird and raptor species. Canada geese are known to utilize the park as a stopover during their migration period. Town Creek crosses the west quarter of Central City east. At the southern corner of this development area, Town Creek is visually apparent. It crosses a maintained grassy area and has the potential to support avifauna and aquatic wildlife. An area of vacant land exists within this redevelopment area. It is located north of Seccombe Lake State Urban Park and to the west of the southwest corner of 9th Street and Waterman Avenue. This vacant land is highly disturbed and holds very little habitat value, but it does have marginal potential to support burrowing owl, a State species of concern. The remainder of Central City East is devoid of natural habitat. No listed species have the potential to occur in the Central City East redevelopment area.

4.3. Central City Meadowbrook

Town Creek traverses through the Central City Meadowbrook redevelopment area from the north to the south. Although, this section of the channel is surrounded by dense development, it contains aquatic habitat and vegetation capable of supporting a variety of water fowl, songbird and raptor species. An area of vacant land is located within this redevelopment area, near the southwest corner of W. Rialto Avenue and N. Sierra Way. It highly disturbed and holds very little habitat value, but it does have marginal potential to support burrowing owl. The remainder of Central City Meadowbrook is devoid of natural habitat. No listed species have the potential to occur in this redevelopment area.

4.4. Central City South

There are five (5) jurisdictional channels that are found within or directly adjacent to the Central City South redevelopment area. These channels are Town Creek, Lytle Creek Channel, Warm Creek By-Pass, Urbita Storm Drain and Twin Creek Channel. The Town Creek discussion above, in section 6.3, applies to Central City South also. Lytle Creek Channel, Warm Creek By-Pass, Urbita Storm Drain and Twin Creek Channel are all improved channels, yet jurisdictional channels. They hold very little habitat value and do not support any sensitive species. Scattered within the Central City South redevelopment area, are several parcels of vacant land that may contain suitable habitat for burrowing owl and, to a much lesser degree, may contain suitable habitat for San Bernardino kangaroo rat. For future development within the Central City South redevelopment area, site specific habitat assessments may be warranted to determine if detailed surveys are required.

4.5. Tri City

The Warm Creek By-Pass and McGlothlen Storm Drain border Sub Area I of the Tri-City redevelopment area to the north and east respectively. These are improved, yet jurisdictional channels. The primary biological resource issue in this redevelopment area is burrowing owl. There are large areas of vacant land in the Tri City redevelopment area that are already graded or are continually disturbed by routine weed abatement activities. As a result of this disturbance, this vacant land holds little habitat value. However, regardless of the level of disturbance, burrowing owl have been observed within and/or adjacent to this redevelopment

area. Therefore, future development within Sub Area I of the Tri City redevelopment area may warrant site specific habitat assessments within certain vacant parcels to determine if focused burrowing owl surveys are required.

The Santa Ana River Channel borders Sub Area II of the Tri City redevelopment area to the north. See Southeast Industrial Park discussion below for a detailed discussion on the potential biological resource constraints associated with the Santa Ana River. An improved section of San Timoteo Creek passes through the southwest corner of Sub Area II of the Tri City redevelopment area. Although, this section of San Timoteo Creek holds little habitat value, it is jurisdictional. The remainder of Sub Area II is already developed or graded for development. As a result, there is no potential habitat for sensitive species. There may be areas however, within Sub Area II where there is potential habitat for perching, roosting, and/or nesting raptors.

4.6. South Valle

San Timoteo Creek borders the South Valle redevelopment area to the northeast. See San Timoteo Creek discussion above. Scattered within the South Valle redevelopment area, are several parcels of vacant land that may contain suitable habitat for burrowing owl. For future development within this redevelopment area, site specific habitat assessments may be warranted to determine if focused burrowing owl surveys are required.

4.7. Southeast Industrial Park

The western area of the Southeast Industrial Park redevelopment area is bisected by the Santa Ana River, and the eastern area is bordered by the Santa Ana River to the north. Soft-bottom sections of Twin Creek and San Timoteo Creek run through the western area and a soft-bottom section of Mission Channel bisects the eastern area. The section of Twin Creek that occurs in this redevelopment area is maintained annually for flood control, but holds moderate habitat value for a number of bird species. The section of San Timoteo Creek that occurs in this redevelopment area often contains elements of riparian and/or marsh-wetland habitat near it's confluence with the Santa Ana River. The section of Mission Creek that bisects the eastern area contains aquatic, marsh, wetland and riparian habitat types.

The biological resources associated with the Santa Ana River are discussed in detail below.

4.7.1. Habitat

The specific habitat types found within the Santa Ana River Floodplain, near the Southeast Industrial Park redevelopment area, include Riversidean alluvial fan sage scrub (Holland community code 32720), southern cottonwood-willow riparian forest (Holland community code 61330), sandy river wash (Holland community code 11730) and southern willow scrub (Holland community code 63320). There is also aquatic habitat and a few isolated patches of marsh-wetland habitat.

Moderate stands of riparian habitat extend from the I-215 upstream to Mountainview Avenue within the Santa Ana River. This riparian habitat is in various seral stages and generally consists of tall, multilayered, open, canopy riparian woodland. The characteristic vegetative species within this riparian habitat include: Eucalyptus, Freemont cottonwood (*Populus fremontii),* black willow (*Salix goodingii*) narrow-leved willow (*S. exigua*), arroyo willow (*S. lasiolepis*), sandbar willow (*S. hindsiana*), mule fat (*Baccharis salicifolia*), and sycamore

(*Platanus recemosa).* The canopy structure of this riparian woodland has a complex architecture and its understory consists of varying layers of shrubs, herbs and vines.

In addition to the riparian habitat, there is also mule fat scrub found in discrete patches along the outer edges of the riparian woodland. The mule fat scrub is dominated by mule fat *(Baccharis salicifolia)* and typically occurs in areas that experience less frequent scour than the willow riparian woodland. Mule fat scrub often comprises an important subcomponent of the willow riparian woodland through its presence along the upper edge and within openings of the woodland.

There are expansive patches of Riversidean alluvial fan sage scrub (RAFSS) in the Santa Ana River from the I-215 upstream to Mountainview Avenue. RAFSS is a distinct habitat type of the coastal sage scrub community. It is composed of species found in both coastal sage scrub and chaparral communities. This is a relatively open vegetation type adapted to periodic disturbances, such as flooding and erosion. RAFSS is composed of an assortment of drought deciduous shrubs and larger evergreen woody shrubs such as Yerba Santa (*Eriodictyon trichocalyx*), (*Artemisia Californica*), buckwheat (*Eriogonum fasciculatum*), golden currant (*Ribes aureum*), California croton (*Croton californica*), and white sage (*Salvia apiana*).

In addition to the fundamental flood control and water supply-related functions of the Santa Ana River, this watercourse serves as a wildlife habitat linkage, corridor and buffer. In an urban context, habitat linkages provide links between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages, but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet, inadequate for others. Wildlife corridors are important features for dispersal, seasonal migration, foraging, and breeding. In addition to linkage and corridor values, open space can provide a buffer against both human disturbance and natural fluctuations in resources. The Santa Ana River buffers the plants and wildlife from surrounding human disturbance. For these and other reasons, the habitat in the Santa Ana River near the Southeast Industrial Park redevelopment area supports a high level natural resource diversity and richness. Despite its location in the middle of a dense urban area, the Santa Ana River maintains considerable habitat value.

4.7.2. Special Status Species

According to the California Natural Diversity Data Base (CNDDB) 55 special status species have been identified in the Redlands and San Bernardino South quadrangles. Of these 55 species, six (6) State and/or federally listed species have been documented within the Santa Ana River in the vicinity of the Project Areas, near the Southeast Industrial Park redevelopment area. These species include the San Bernardino kangaroo rat (SBKR) [*Dipodomys mariami parvus*], coastal California gnatcatcher (CAGN) [*Polioptila californica californica*], least Bell's vireo (LBVI) [*Vireo bellii pusillus*], southwestern willow flycatcher (SWWF) [*Empidonax traillii extimus*], Santa Ana River woollystar [*Eristrum densifolium* var *santorum*], and the slender-horned spineflower [*Dodecahema leptoceras*].

All sensitive species documented to occur or have occurred within the San Bernardino South and Redlands Topographic Quadrangles are listed in Table 1 along with species status, basic habitat requirements and occurrence potential within the Project Areas. Further discussion of

the state and/or federal threatened or endangered species identified as occurring within the Santa Ana River floodplain in the Project Areas, near the Southeast Industrial Park redevelopment area, is provided below.

4.7.2.1. Slender-horned spineflower

The slender-horned spineflower is a federally-endangered, small, spreading annual in the buckwheat family (Polygonaceae), with stems reaching 3-15 cm across. The size of spineflowers varies, however, depending on annual available moisture (Ferguson et al. 1996). This annual has a basal rosette of leaves, from which rise dense flowering stalks. Slender-horned spineflower is distinguished from other spineflowers by the presence of 6 terminal awns and 6 hooked basal awns on each involucre. The involucre in this species is a group of bracts that have been fused together to enclose approximately 3 white to pink flowers within each involucre, blooming April through June (Hickman 1993; Munz 1974).

At the majority of sites, slender-horned spineflower is found in sandy soil in association with mature alluvial scrub. The ideal habitat for this species appears to be a terrace or bench that receives overbank deposits every 50 to 100 years. Cryptogamic crusts are frequently present in areas occupied by slender-horned spineflower (USFWS 1996). These crusts on the soil surface are composed of associations of bryophytes (mosses), algae, lichens, and some xerophytic liverworts. Cryptogamic crusts enable soils to retain moisture and may help suppress invasion by non-native plant species.

This flower is endemic to southwestern cismontane California, ranging from central Los Angeles County east to San Bernardino County, and south to southwestern Riverside County in the foothills of the Transverse and Peninsular Ranges, at 200 to 700 meters elevation (Hickman 1993). Only eight areas are still known to support slender-horned spineflower , including two localities each in Los Angeles County (Bee Canyon and Big Tujunga Wash), and two in San Bernardino County (the Santa Ana River wash and Cajon Wash) (CNDDB 2008). Because slender-horned spineflower is an annual and a spring-bloomer, it is expected to germinate following winter precipitation. Potential dispersal agents include coyotes, rabbits, rodents and deer. Dispersal may also occur via flood water or wind. It is threatened by urbanization, off-road vehicle use, sand and gravel mining, trampling associated with recreation, flood control measures (i.e., constriction of the floodplain, dams, etc.), and competition from non-native plant species (USFWS 1986).

Individuals are small, and thus may be difficult to locate. This species is only readily detectable in the spring between April and June when in bloom. Population size varies considerably from year to year depending upon rainfall. Although suitable habitat exists within the Project area, slender-horned spineflower have not been found in the Santa Ana River between the I-215 and Mountainview Avenue in the last decade.

4.7.2.2. Santa Ana River woollystar

Santa Ana River woollystar is a perennial in the Phlox (Polemoniaceae) plant family. This species is a low shrubby perennial which can grow to one meter (3.3 feet) tall, with gray-green stems and leaves. This species blooms from June to August and produces bright blue flowers that are up to 1.4 inches long that occur in flower heads with about 20 blossoms each. There are three primary pollinators: long-tongued digger bee, giant flower-loving fly and hummingbirds. The importance of a particular pollinator type appears to depend on habitat type within the

floodplain. This species is associated with early- to moderate- successional alluvial scrub, and thus requires periodic flooding and silting for the creation of new habitats and colonization.

Suitable habitat is comprised of a patchy distribution of gravelly soils, sandy soils, rock mounds and boulder fields (USFWS 1986). Suitable habitat typically contains low amounts of clay, silt and micro-organic materials. These areas typically maintain a perennial plant cover of less than 50%. Associated perennial plants include California buckwheat (*Eriogonum fasciculatum*), California croton (*Croton californicus*), yerba santa (*Eriodictyon trichocalyx*) and scale-broom (*Lepidospartum squamatum*).

The Santa Ana River woolly-star occurs along the Santa Ana River and Lytle and Cajon Creek flood plains from the base of the San Bernardino Mountains in San Bernardino County southwest along the Santa Ana River through Riverside County into the Santa Ana Canyon of northeastern Orange County from about 150 to 580 meters (Munz 1974). It is one of five subspecies of the perennial sub-shrub *Eriastrum densifolium*. This species is threatened by flooding, floodplain modification for flood control purposes and development; flood control management (clearing for channel maintenance and construction of flood control structures); off-road vehicle activity; grazing (resulting in heavy weed cover); farming; sand and gravel mining; and loss of habitat and competition with aggressive non-native species such as European grasses and *Arundo donax*.

Santa Ana River woolly-star occurs in the Santa Ana River between Tippecanoe Avenue and Mountainview Avenue.

4.7.2.3. San Bernardino kangaroo rat

There are 19 subspecies of Merriam's k-rat (*Dipodomys merriami*), three of which occur in California, including the SBKR. Of the three California subspecies, SBKR are the smallest and darkest. Of the six primary, recently, occupied locations in the San Bernardino and San Jacinto Valleys, only three sites (Santa Ana River and it's tributaries, Cajon and Lytle creeks, and San Jacinto and Bautista creeks) support robust, sustaining populations of SBKR and large contiguous patches of occupied habitat. SBKR are found primarily on well drained, sandy loam substrates, characteristic of alluvial fan and floodplains, where they are able to dig simple, shallow burrows.

The historic range of the subspecies San Bernardino kangaroo rat lies west of the desert divide of the San Jacinto and San Bernardino mountains and extends from the San Bernardino Valley in San Bernardino County to the Menifee Valley in Riverside County (Lidicker 1960; Hall 1981). The subspecies currently occupies seven general locations (USFWS 1998), including the Santa Ana River, Cajon Creek Wash, Lytle Creek Wash, City Creek, and upper Etiwanda Wash in San Bernardino County, and sites in western Riverside County described below. The USFWS emergency listed the SBKR on January 27, 1998 and subsequently listed them as federally endangered later that same year on September 24, 1998 (63 FR 3837) under the Endangered Species Act of 1973 (63 FR 3877), as amended. The USFWS also designated critical habitat units for the SBKR on April 23, 2002, revised 2008 (67 FR 19811).

The units include reaches of the Santa Ana, Lytle and Cajon creeks, San Jacinto River and Bautista creek, and the Etiwanda alluvial fan (65 FR 77178). Identified threats to the San Bernardino kangaroo rat include the loss of habitat, habitat fragmentation, urban and industrial development, highway construction, flood control and water conservation projects, sand and

gravel mining, grazing, and vandalism (USFWS 1998). Additional threats to the species likely include farming and discing of habitat for weed abatement, heavy grazing, and off-road vehicles. Although this species is associated with sandy washes and drainages, habitat supporting alluvial fan sage scrub on the benches above creek channels is also important for this species.

A sustaining population of SBKR occurs in the channel and upper benches of the Santa Ana River between Tippecanoe Avenue and Mountainview Avenue.

4.7.2.4. Southwestern willow flycatcher

The southwestern willow flycatcher (SWWF) is a small passerine bird measuring approximately 5.7 inches in length. It has a grayish-green back and wings, whitish throat, a light gray-olive breast, and pale yellowish belly. It has two visible white wing bars and a faint or absent eye ring. The call consists of a repeated "whit" and their song is a sneezy "fitz-bew." (60 FR 10694). The southwestern willow flycatcher is currently one of the four recognized subspecies of the willow flycatcher. This flycatcher is a neotropical migrant that breeds in the southwestern United States from mid-April to early-September. In the fall, it migrates south to its wintering grounds in portions of South America, Central America and Mexico. (60 FR 10694)

A rapid decrease in the numbers of SWWF in California and other southwestern states prompted the USFWS to designate it as a Category 1 candidate species in 1991. One year later in 1992, the California Fish and Game Commission listed the species as endangered, under the California Endangered Species Act (CESA) of 1970. On July 23, 1993 the southwestern willow flycatcher was proposed for listing as endangered by the USFWS and was then listed as Federally endangered on February 27, 1995, under the Endangered Species Act (ESA) of 1973 (60 FR 10694). The USFWS designated critical habitat for the species on July 22, 1997. This habitat includes 18 units with a total of 599 miles of river in California, New Mexico, and Arizona. In California, critical habitat was designated along portions of the Santa Ana River, San Luis Rey River, San Diego River, Santa Margarita River, Tijuana River, and south fork of the Kern River (62 FR 39129). On May 11, 2001, the critical habitat designation from 1997 was struck down by the U.S. 10th Circuit Court of Appeals who required further economic analysis. A recovery plan was finalized by USFWS in March of 2003. Critical habitat designations for this species were re-proposed and finalized in June 2004 (USFWS, 2003c).

The SWWF breeds in dense riparian habitats along rivers, streams, and other wetlands. They have been documented to establish territories in elevations ranging from sea level to 8,500 feet (Sogge 1997). Plant species closely associated with the flycatcher include willows (*Salix* spp.), box elder (*Acer negungo*), seepwillow *(Baccharis* spp.), with an overstory of cottonwood (*Populus fremontii*) (62 FR 39129). Occupied habitat is generally dominated by shrubs and trees 13 to 23 feet or more in height, which provide dense lower and mid-story vegetation approximately 13 feet aboveground. This dense vegetation is often interspersed with open water, small openings, or sparse vegetation, creating a mosaic that is not uniformly dense (62 FR 39129).

Although the habitat within the Santa Ana River between the I-215 and Mountainview Avenue is suitable for this species, there is no published documentation of SWWF occurring in the vicinity of the Project Area within the last decade. SWWF are highly sensitive to disturbance and are not expected to occur in the immediate vicinity of the Southeast Industrial Park Project Area portion of this Project. The stream area habitat conditions are indicative of heavy, unauthorized recreational use.

4.7.2.5. Coastal California Gnatcatcher

The coastal California gnatcatcher (CAGN) is a small blue-gray songbird. It has dark blue-gray feathers on its back and grayish-white feathers on its underside. The wings have a brownish wash to them. Its long tail is mostly black with white outer tail feathers. They have a thin, small bill, and the males have a black cap during the summer which is absent during the winter. The gnatcatcher typically occurs in or near sage scrub habitat, which includes the following plant communities as classified by Holland (1986): Venturan coastal sage scrub, Diegan coastal sage scrub, maritime succulent scrub, Riversidean sage scrub, Riversidean alluvial fan sage scrub, southern coastal bluff scrub, and coastal sage-chaparral scrub. CAGN also use chaparral, grassland, and riparian habitats where they occur adjacent to sage scrub (Bontrager 1991). These non-sage scrub habitats are used for dispersal (Bowler 1995; Campbell et al. 1995). Gnatcatchers are persistent nest builders and often attempt multiple broods, which is suggestive of a high reproductive potential.

Historically, CAGN occurred from southern Ventura County southward through Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties, and into Baja California, Mexico (Atwood 1990). The amount of coastal sage scrub available to gnatcatchers has continued to decrease during the period after the listing of the species. It is estimated that up to 90 percent of coastal sage scrub vegetation has been lost as a result of development and land conversion (Barbour and Major 1977).

The habitat within and adjacent to the Santa Ana River floodplain is suitable for dispersal of juvenile coastal California gnatcatchers, but it is not suitable to support breeding pairs.

4.7.2.6. Least Bell's Vireo

The least Bell's vireo (LBVI) is a small, olive-gray migratory songbird that nests and forages almost exclusively in riparian woodland habitats. Bell's vireos, as a group, are highly territorial and are almost exclusively insectivorous. Least Bell's vireo nesting habitat typically consists of well developed overstory, understory, and low densities of aquatic and herbaceous cover. The understory frequently contains dense sub-shrub or shrub thickets. These thickets are often dominated by plants such as narrow-leaf willow, mule fat, young individuals of other willow species such as arroyo willow or black willow, and one or more herbaceous species. LBVI generally begin to arrive from their wintering range in southern Baja California and establish breeding territories by mid-March to late-March. A large majority of breeding vireos apparently depart their breeding grounds by the third week of September and only a very few have been found wintering in the United States.

The explanations for the drastic decline of this species are various; however the two prevailing factors are habitat loss and brown-headed cowbird (*Molothrus ater*) brood parasitism (Kus 1998; Sogge et al. 1997). This small passerine species constructs open cup nests low in the riparian canopy, which may cause them be more vulnerable to brood parasitism compared to larger passerines that nest higher in the canopy. The loss and degradation of riparian habitats have both occurred due to urban and agricultural development, fire, water diversion and impoundment, channelization, livestock grazing, off-road vehicle use and recreation, replacement of native habitats by introduced plant species, and hydrological changes resulting from these and other land uses. LBVI was first proposed for listing as endangered by the USFWS on May 3, 1985, (50 FR 18968) and was subsequently listed as federally endangered on May 2, 1986 (60 FR 10694). Critical habitat units were designated by the USFWS on February 2, 1994 (59 FR 4845) and included reaches of ten streams in six counties in southern

California and the surrounding approximately 38,000 acres. The critical habitat units exist in the Santa Ynez River, Santa Clara River, Santa Ana River, Santa Margarita River, San Luis Rey River, Sweetwater River, San Diego River, Tijuana River, Coyote Creek, and Jumul-Dulzura Creek.

Although LBVI use a variety of riparian plant species for nesting, it appears that the structure of the vegetation is more important than other factors, such as species composition or the age of the stand. Vireos forage in riparian and adjacent chaparral habitats up to 984 feet from the nest, and use both high and low scrub layers as foraging substrate.

There are numerous records of the LBVI in the Santa Ana River between the Interstate 215 freeway and the Waterman Avenue bridge crossing over the Santa Ana River. When the population in this area is dense and resources limited, LBVI have been located in small habitat patches upstream in the Santa Ana River, on the south side of the channel near the confluence of Mission Creek with the Santa Ana River. Currently, the willow/ cottonwood habitat in the Santa Ana River between the I-215 and Montainview Avenue displays a canopy structure considered suitable for LBVI. As a general rule, suitable vireo habitat is at least 0.5 acres in size with dense clumps of vegetation consisting of two to three story canopy structure. The vegetative cover should be at least 50 percent and may include non-riparian woody vegetation, as long as riparian vegetation is present. The likelihood of LBVI using this area for foraging or nesting is related to the densities found downstream. The preference for this species would be to locate in the dense stands of willow cottonwood habitat, but they will use less dense habitat if there is no room for them elsewhere.

5. Potential Regulatory Constraints

5.1. Critical Habitat

Critical Habitat is designated by USFWS for some threatened and endangered species. At this time, no critical habitat has been designated for slender-horned spineflower or Santa Ana River woolly-star. No portions of the Project Areas are located within designated critical habitat for LBVI (59 FR 4845; February 2, 1994), CAGN (FR Doc. 07–6003), SWWF (70 FR 60885 61009), or SBKR (72 FR 33808).

Santa Ana sucker (SASU) [*Catostomus santaanae*] is a native fish found only in a handful of rivers in southern California. Their range is extremely restricted; they are native only to the Los Angeles, San Gabriel, Santa Ana, and Santa Clara River systems in southern California. They now only live in the upper portion of the Los Angeles and San Gabriel drainages, and the lower part of the Santa Ana River, downstream of La Cadena Avenue, near the Rialto Drain. Although this species does not occur in the Project Areas, it is worth mentioning that critical habitat for the SASU was published January 4, 2005 (70 FR 426). This rule was litigated and a revised SASU critical habitat designation is mandated to be issued in 2010. According to the USFWS the revised proposal will encompass areas of the Santa Ana River within the Project Areas between I-215 and Tippecanoe Avenue. Any future development within the Project Areas that may affect the Santa Ana River may need to address this issue.

5.2. Jurisdictional Waters

Several jurisdictional channels and drainages are identified in the Project Areas. These channels are:

1. Town Creek (improved and natural sections)
2. Warm Creek By-Pass (improved)
3. McGlothlen Storm Drain (improved)
4. Lytle Creek Channel (improved)
5. Urbita Storm Drain (improved)
6. Twin Creek Channel (improved and soft-bottom channelized sections)
7. Santa Ana River (natural)
8. Mission Creek (natural)
9. San Timoteo Creek (improved and soft-bottom sections)

All of these water courses are considered waters of the U.S. and waters of the State and are subject to the Clean Water Act. These channels as well as Seccombe Lake are also subject to the California Fish and Game Code.

5.2.1. Clean Water Act (CWA)

The CWA is the principal federal law that governs pollution in the nation's lakes, rivers, and coastal waters. Originally enacted in 1972 as a series of amendments to the Federal Water Pollution Control Act of 1948 the Act was last amended in 1987. The overriding purpose of the CWA is to "restore and maintain the chemical, physical and biological integrity of the nation's waters." The statute employs a variety of regulatory and non-regulatory tools to eliminate the discharge of pollutants into the nation's waters and achieve water quality that is both "swimmable and fishable". Section 303 of CWA requires that states establish ambient water quality standards for water bodies, consisting of the beneficial use or uses of a water body (e.g. recreation, public water supply, etc.), and the water quality criteria necessary to protect the use or uses. Section 303(d) requires states to identify waters that are impaired by pollution, even after application of pollution controls.

5.2.2. Porter-Cologne Water Quality Control Act

Porter-Cologne Water Quality Control Act is the principal state law that governs water protection efforts in California. For this project, this law would apply to the indirect effects of future storm water runoff. Enacted in 1969, sections of the state law served as the basis for the federal Clean Water Act of 1972. Porter-Cologne establishes the State Water Resources Control Board and each of the nine Regional Water Quality Control Boards as the principal state agencies for coordinating and controlling water quality in California. The Regional Boards issue CWA NPDES permits (see below) to selected point-source discharges and either waste discharge requirements or conditional water quality certifications for other discharges.

5.2.3. California Fish and Game Code

Sections 1600 to 1616 of the California Fish and Game Code require any person, state, or local government agency or public utility to notify the California Department of Fish and Game (CDFG) before beginning any activity that will substantially modify a river, stream, or lake. If it is determined that the activity could substantially adversely impact an existing fish and wildlife resource, a Lake or Streambed Alteration Agreement is required.

6. Potentially Relevant Regulatory Agencies

Due to the presence of threatened or endangered species within areas of the Santa Ana River that are potentially affected by this Project, specifically within the Southeast Industrial Park redevelopment area, incidental take authorities could be required. If any aspect of proposed action may result in the physical modification to the Santa Ana River, particularly where the Project Areas abut or are within the floodplain, then certain authorizations may be required by the following regulatory agencies.

6.1. U.S. Army Corps of Engineers

The Corps regulates discharges of dredged or fill material into waters of the United States. Waters of the United States include wetlands and non-wetland bodies of water that meet specific criteria. The Corps' regulatory jurisdiction pursuant to Section 404 of the Federal CWA is founded on a connection, or nexus, between the water body in question and interstate commerce. This connection may be direct through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce, or may be indirect, through a nexus identified in the Corps regulations. One of the mechanisms adopted by Congress to achieve restoration and maintenance of the chemical, physical, and biological integrity of the Nation's waters is a prohibition on the discharge of any pollutants, including dredged or fill material, into "navigable waters" except in compliance with other specified sections of the Act.

6.2. Regional Water Quality Control Board

The RWQCB's regulatory jurisdiction is pursuant to Section 401 of the Federal CWA. The RWQCB typically regulates discharges of dredged or fill material into *Waters of the United States*, however they also have regulatory authority over waste discharges into Waters of the State, which may be isolated, under the Porter-Cologne Water Quality Control Act issued by the State Water Resources Board. In the absence of a nexus with the Corps, the Regional Board requires the submittal of a Waste Discharge Requirement (WDR) application, which must include a copy of the project Stormwater Pollution Prevention Plan (SWPPP) and a copy of the project Water Quality Management Plan (WQMP), otherwise called a Standard Urban Stormwater Management Plan (SUSMP). The Regional Board's role is to ensure that disturbances in the stream channel do not cause water quality degradation.

6.3. California Department of Fish and Game

Unlike the Corps, CDFG regulates not only the discharge of dredged or fill material, but all activities that alter streams and lakes and their associated habitats. The CDFG, through provisions of the California Fish and Game Code (Sections 1601-1603), is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. Streams (and rivers) are defined by the presence of a channel bed and banks, and at least an intermittent flow of water. The CDFG typically extends the limits of their jurisdiction laterally beyond the channel banks for streams that support riparian vegetation. In these situations the outer edge of the riparian vegetation is generally used as the lateral extent of the stream and CDFG jurisdiction. CDFG regulates wetland areas only to the extent that those wetlands are a part of a river, stream, or lake as defined by CDFG.

The CDFG administers the California Endangered Species Act (CESA). The State of California considers an endangered species one whose prospects of survival and reproduction are in

immediate jeopardy. A threatened species is one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management and a rare species is one present in such small numbers throughout its range that it may become endangered if its present environment worsens. Rare species applies to California native plants. The State definition of “take” is narrow and specifically refers to the direct loss of a State listed species.

Provisions within the California Fish and Game Code protect all native birds of prey and their nests (FGC §3503.5), and all non-game birds (other than those not listed as Fully Protected) that occur naturally in the State (§38oo). The handful of species, such as the California condor, that are designated by the State as “fully protected” received this rare designation through special legislation. There is no mechanism allowed for CDFG to issue take authorization for a fully protected species. Species of Special Concern is an informal designation used by CDFG for some declining wildlife species that are not proposed for listing as threatened or endangered, such as the burrowing owl. If a project proposes impacts to burrowing owl, then a Memorandum of Understanding issued by the CDFG is required to address and mitigate the proposed impacts.

6.4. U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service (USFWS) administers the federal Endangered Species Act (ESA) of 1973. The ESA provides a legal mechanism for listing species as either threatened or endangered, and a process of protection for those species listed. Section 9 of the ESA prohibits "take" of threatened or endangered species. The term "take" under federal law means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. "Take" can include adverse modification of habitats used by a threatened or endangered species during any portion of its life history.

Under the regulations of the ESA, the USFWS may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act. Take authorization can be obtained under Section 7 or Section 10 of the Act. The Act requires Federal agencies to insure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species, or destroy or adversely modify its critical habitat, if any is designated. Activities requiring Federal involvement that may affect an endangered species on federal or private land must be reviewed by the USFWS who will determine whether or not the continued existence of the listed species is jeopardized.

The USFWS, in coordination with the CDFG, State Fish and Game Code §3503.5 and §3800, administers the Migratory Bird Treaty Act (MBTA), which provides protection for nesting birds that are both residents and migrants, whether or not they are considered sensitive by resource agencies. The MBTA prohibits take of nearly all native birds. "Take" in this law has been construed by the courts much more narrowly than under the enacted ESA. Under the MBTA, "take" means only to kill, harm, or destroy individuals or eggs, or cause failure of a nesting effort. Permits are available through USFWS, but are generally only given for emergency repairs where potential loss of human life or safety is regulations are applied selectively by public agencies as a practical matter, as it would be impossible to pursue every action threatening any bird or nest. The most common situations in which MBTA is applied are: (1) as an additional regulatory requirement in projects which hold the potential for substantial environmental degradation; (2) as an additional tool when prosecuting willful violation of other biological resource regulations such as the ESA or hunting regulations; (3) to provide protection of

colonially nesting species, such as herons, terns, and swallows; and (4) to provide protection of nesting birds of prey.

7. Conclusions

Each redevelopment area shows some potential for nesting raptors and nesting birds. Additionally, future site specific development within the Project Area may warrant habitat evaluations to determine the need for detailed or focused surveys for certain species such as burrowing owl.

Future development in the redevelopment Project Areas would require compliance with water quality discharges during development and after development ,and if any future development required modifications to a jurisdictional channel, then regulatory permits may be required.

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U.S. Fish and Wildlife Service 2007. Final Determination of Critical Habitat for the San Bernardino Kangaroo Rat (Dipodomys merriami parvus); Final Rule. 72 FR 33808

Western Municipal Water District Integrated Regional Water Management Plan, 2006

Wheeler, J.A. 1991. Seed and seedling ecology of Eriastrum densifolium ssp. sanctorum an endangered floodplain endemic. Master's Thesis. California State University, Fullerton, California.

FIGURES

Figure 1. Regional Location Map

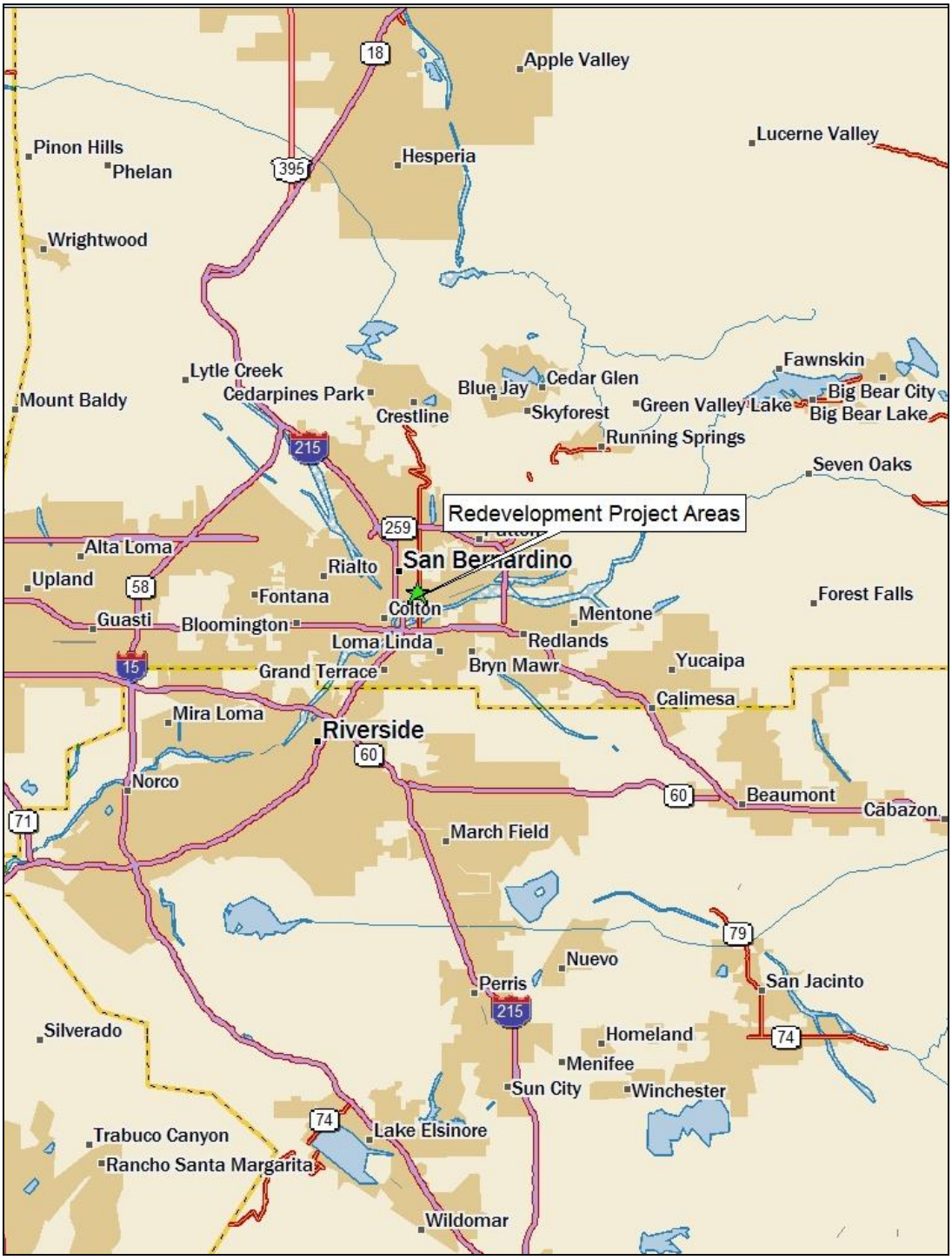


Figure 2. Project Areas Vicinity Locations on USGS Topographical Map

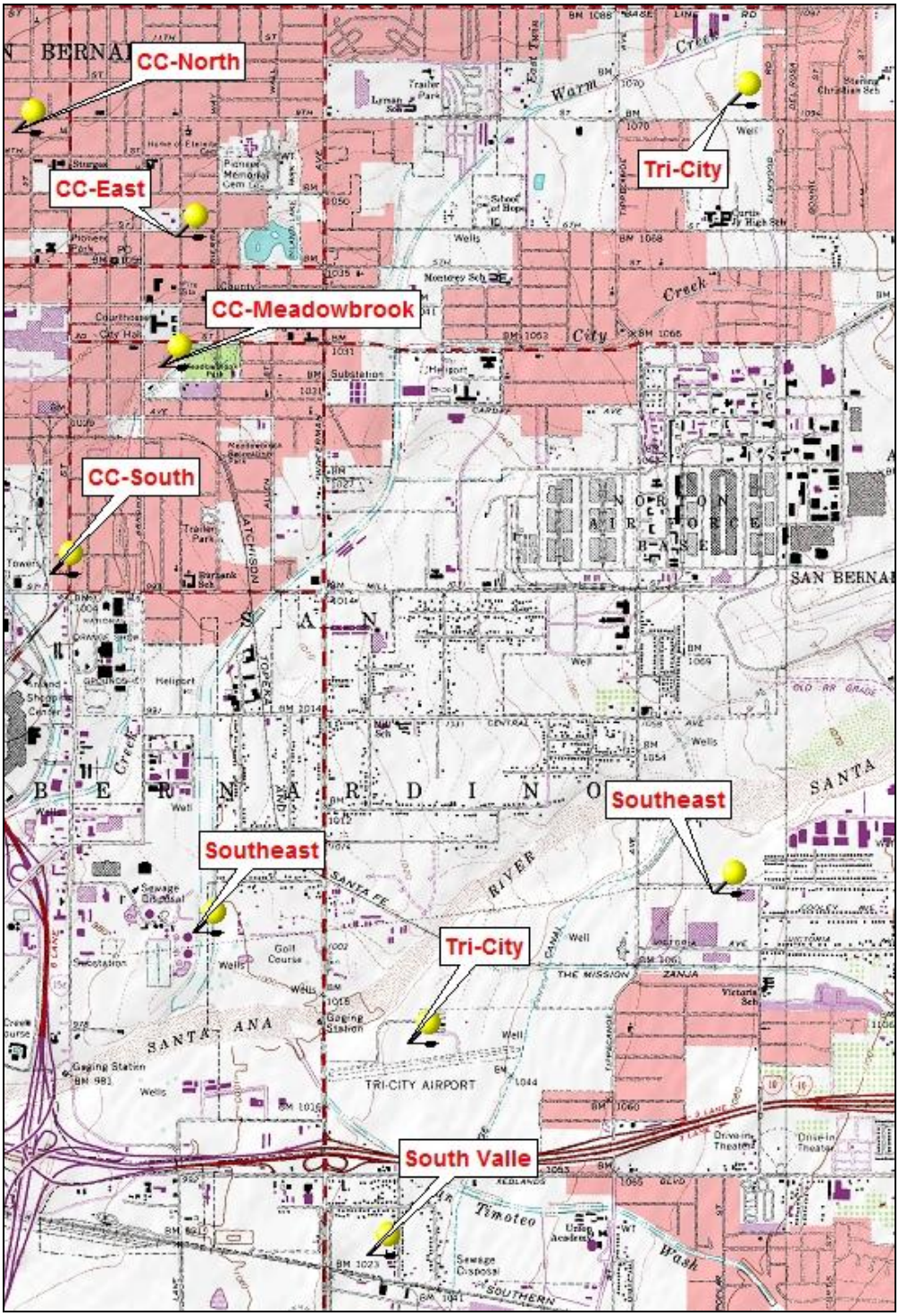
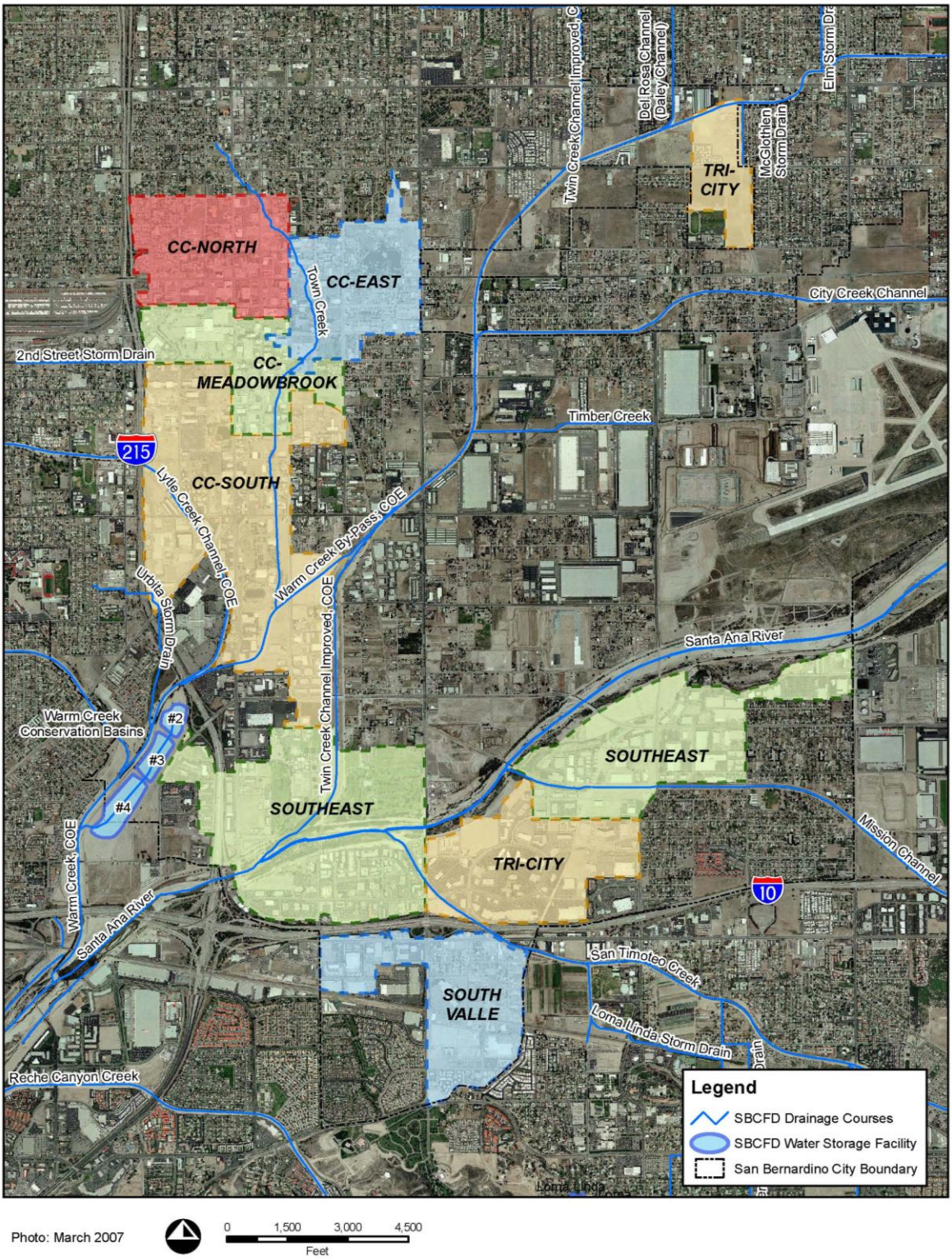


Figure 3. Aerial View of Redevelopment Project Areas



CNDDB Sensitive Species Occurrence Potential Table

Table 1. CNDDB Sensitive Species Occurrence Potential

Scientific name	**Common Name**	**Status fed./State**	**General Habitat**	**Micro Habitat**	**Occurrence Potential**
Accipiter cooperii	Cooper's hawk	N/N	Woodland, chiefly of open, interrupted or marginal type.	Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	Low. Occurrence potential limited to those areas within the redevelopment project area that contain riparian habitat.
Anniella pulchra pulchra	silvery legless lizard	N/N	Sandy or loose loamy soils under sparse vegetation.	Soil moisture is essential. They prefer soils with high moisture content.	Low. Occurrence potential limited to those areas within the redevelopment project area within moist drainage areas.
Antrozous pallidus	pallid bat	N/N	Deserts, grasslands, shrublands, woodlands & forests. Most common in open, dry habitats with rocky areas for roosting.	Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Extremely low. No suitable habitat exists in the project area.
Arenaria paludicola	marsh sandwort	E/E	Marshes and swamps.	Growing up through dense mats of typha, juncus, scirpus, etc. In freshwater marsh. 10-170m.	Extremely low. No suitable habitat exists in the project area.
Aspidoscelis hyperythra	orange-throated whiptail	N/N	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats.	Prefers washes & other sandy areas with patches of brush & rocks. Perennial plants necessary for its major food-termites	Low. Occurrence potential limited to those areas within the redevelopment project area within moist drainage areas.
Astragalus hornii var. *hornii*	Horn's milk-vetch	N/N	Meadows and seeps, playas.	Lake margins, alkaline sites. 60-850m.	Extremely low. No suitable habitat exists in the project area.

Scientific name	Common Name	Status fed./State	General Habitat	Micro Habitat	Occurrence Potential
Athene cunicularia	burrowing owl	N/N	Open, dry annual or perennial grasslands, deserts & scrublands characterized by low-growing vegetation.	Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Low to moderate. Marginally suitable habitat exists within the vacant patches of land that are scattered throughout the Project redevelopment areas.
Berberis nevinii	Nevin's barberry	E/E	Chaparral, cismontane woodland, coastal scrub, riparian scrub.	On steep, n-facing slopes or in low grade sandy washes. 290-1575m.	Extremely low. No suitable habitat exists in the project area.
Calochortus plummerae	Plummer's mariposa-lily	N/N	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest.	Occurs on rocky and sandy sites, usually of granitic or alluvial material. Can be very common after fire. 90-1610m.	Extremely low. No suitable habitat exists in the project area.
Carex comosa	bristly sedge	N/N	Marshes and swamps.	Lake margins, wet places; site below sea level is on a delta island. -5-1005m.	Extremely low. No suitable habitat exists in the project area.
Carolella busckana	Busck's gallmoth	N/N			Extremely low. No suitable habitat exists in the project area.
Catostomus santaanae	Santa Ana sucker	T/N	Endemic to Los Angeles basin south coastal streams.	Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, & algae.	Extremely low. This species does not occur in the project area. The nearest known location is approximately 10 miles away to the east in City of Colton in the Rialto Drain.

Scientific name	Common Name	Status fed./State	General Habitat	Micro Habitat	Occurrence Potential
Caulanthus simulans	Payson's jewel-flower	N/N	Chaparral, coastal scrub.	Frequently in burned areas, or in disturbed sites such as streambeds; also on rocky, steep slopes. 90-2200m.	Extremely low. No suitable habitat exists in the project area.
Centromadia pungens ssp. *laevis*	smooth tarplant	N/N	Valley and foothill grassland, chenopod scrub, meadows, playas, riparian woodland.	Alkali meadow, alkali scrub; also in disturbed places. 0-480m.	Extremely low. No suitable habitat exists in the project area.
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	N/N	Coastal scrub, chaparral, grasslands, sagebrush, etc. In western San Diego co.	Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	Moderate. This species occurs locally and may be present along the margins of the southern half of the project area near the Santa Ana River floodplain.
Chorizanthe parryi var. *parryi*	Parry's spineflower	N/N	Coastal scrub, chaparral.	Dry slopes and flats; sometimes at interface of 2 veg types, such as chap and oak wdland; dry, sandy soils. 40-1705m.	Extremely low. No suitable habitat exists in the project area.
Coccyzus americanus occidentalis	western yellow-billed cuckoo	C/E	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems.	Nests in riparian jungles of willow, often mixed with cottonwoods, w/ lower story of blackberry, nettles, or wild grape.	Extremely low. No suitable habitat exists in the project area.
Cordylanthus maritimus ssp. *maritimus*	salt marsh bird's-beak	E/E	Coastal salt marsh, coastal dunes.	Limited to the higher zones of the salt marsh habitat. 0-30m.	Extremely low. No suitable habitat exists in the project area.

Scientific name	Common Name	Status fed./State	General Habitat	Micro Habitat	Occurrence Potential
Crotalus ruber ruber	northern red-diamond rattlesnake	N/N	Chaparral, woodland, grassland, & desert areas from coastal San Diego county to the eastern slopes of the mountains.	Occurs in rocky areas & dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	Low. No suitable habitat exists in the project area.
Dendroica petechia brewsteri	yellow warbler	N/N	Riparian plant associations. Prefers willows, cottonwoods, aspens, sycamores, & alders for nesting & foraging.	Also nests in montane shrubbery in open conifer forests.	Moderate. This species has been documented in the riparian habitat in the Santa Ana River between the I-215 and Mountainview Ave.
Dipodomys merriami parvus	San Bernardino kangaroo rat	E/N	Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains.	Needs early to intermediate seral stages.	Moderate. This species occurs in the Santa Ana River floodplain and upper terraces between the I-215 and Mountainview Ave.
Dipodomys stephensi	Stephens' kangaroo rat	E/T	Primarily annual & perennial grasslands, but also occurs in coastal scrub & sagebrush with sparse canopy cover.	Prefers buckwheat, chamise, brome grass & filaree. Will burrow into firm soil.	Low. No suitable habitat exists in the project area.
Dodecahema leptoceras	slender-horned spineflower	E/T	Chaparral, coastal scrub (alluvial fan sage scrub).	Flood deposited terraces and washes; assoc include encelia, dalea, lepidospartum, etc. 200-760m.	Low. Occurrence potential is limited to the active Santa Ana River floodplain.
Empidonax traillii extimus	southwestern willow flycatcher	E/E	Riparian woodlands in southern California.		Low. Occurrence potential is limited to the riparian habitat within the Santa Ana River between the I-215 and Waterman Avenue bridge.

Scientific name	**Common Name**	**Status fed./State**	**General Habitat**	**Micro Habitat**	**Occurrence Potential**
Eremophila alpestris actia	California horned lark	N/N	Coastal regions, chiefly from Sonoma co. To San Diego Co. Also main part of San Joaquin Valley & east to foothills.	Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	Low. No suitable habitat exists in the project area.
Eriastrum densifolium ssp. *sanctorum*	Santa Ana River woollystar	E/E	Coastal scrub, chaparral.	In sandy soils on river floodplains or terraced fluvial deposits. 150-610m.	Low to moderate. Occurrence potential is limited to the active Santa Ana River floodplain. This species occurs in the floodplain between Tippecanoe Avenue and Mountainview Avenue.
Eumops perotis californicus	western mastiff bat	N/N	Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral etc	Roosts in crevices in cliff faces, high buildings, trees & tunnels.	Low. Marginally suitable habitat exists in the project area.
Galium californicum ssp. *primum*	California bedstraw	N/N	Chaparral, lower montane coniferous forest.	Grows in shade of trees and shrubs at the lower edge of the pine belt, in pine forest-chaparral ecotone. 360m.	Low. No suitable habitat exists in the project area.
Gila orcuttii	arroyo chub	N/N	Los Angeles basin south coastal streams.	Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation & associated invertebrates.	Low. No suitable habitat exists in the project area.

Scientific name	Common Name	Status fed./State	General Habitat	Micro Habitat	Occurrence Potential
Helianthus nuttallii ssp. *parishii*	Los Angeles sunflower	N/N	Marshes and swamps (coastal salt and freshwater). Historical from southern California.	5-1675m.	Low. No suitable habitat exists in the project area.
Horkelia cuneata ssp. *puberula*	mesa horkelia	N/N	Chaparral, cismontane woodland, coastal scrub.	Sandy or gravelly sites. 70-810m.	Low. No suitable habitat exists in the project area.
Icteria virens	yellow-breasted chat	N/N	Summer resident; inhabits riparian thickets of willow & other brushy tangles near watercourses.	Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.	Low. Occurrence potential limited to those areas within the redevelopment project area that contain riparian habitat.
Imperata brevifolia	California satintail	N/N	Coastal scrub, chaparral, riparian scrub, mojavean scrub, meadows and seeps (alkali).	Mesic sites, alkali seeps, riparian areas. 0-500m.	Low. No suitable habitat exists in the project area.
Lanius ludovicianus	loggerhead shrike	N/N	Broken woodlands, savannah, pinyon-juniper, joshua tree, & riparian woodlands, desert oases, scrub & washes.	Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Low. This species has a potential to occur along the margins of the southern half of the project area near the Santa Ana River floodplain.
Lasiurus xanthinus	western yellow bat	N/N	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats.	Roosts in trees, particularly palms. Forages over water and among trees.	Low. No suitable habitat exists in the project area.

Scientific name	**Common Name**	**Status fed./State**	**General Habitat**	**Micro Habitat**	**Occurrence Potential**
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	N/N	Chaparral, coastal scrub.	Dry soils, shrubland. 1-945m.	Low. No suitable habitat exists in the project area.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	N/N	Intermediate canopy stages of shrub habitats & open shrub / herbaceous & tree / herbaceous edges.	Coastal sage scrub habitats in southern California.	Low. This species has a potential to occur along the margins of the southern half of the project area near the Santa Ana River floodplain.
Lycium parishii	Parish's desert-thorn	N/N	Coastal scrub, sonoran desert scrub.	300-1000m.	Extremely low. No suitable habitat exists in the project area.
Malacothamnus parishii	Parish's bush-mallow	N/N	Chaparral, coastal sage scrub.	In a wash. One site known: 485m.	Extremely low. No suitable habitat exists in the project area.
Monardella pringlei	Pringle's monardella	N/N	Coastal scrub.	Sandy hills. 300-400m.	Extremely low No suitable habitat exists in the project area.
Nasturtium gambelii	Gambel's water cress	E/T	Marshes and swamps.	Freshwater and brackish marshes at the margins of lakes and along streams, in or just above the water level. 5-1305m.	Extremely low. No suitable habitat exists in the project area.
Neotoma lepida intermedia	San Diego desert woodrat	N/N	Coastal scrub of southern California from San Diego county to San Luis Obispo County.	Moderate to dense canopies preferred. They are particularly abundant in rock outcrops & rocky cliffs & slopes.	Low to moderate. This species has a potential to occur along the margins of the southern half of the project area near the Santa Ana River floodplain.

Scientific name	Common Name	Status fed./State	General Habitat	Micro Habitat	Occurrence Potential
Nyctinomops femorosaccus	pocketed free-tailed bat	N/N	Variety of arid areas in southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert ripa	Rocky areas with high cliffs.	Low. No suitable habitat exists in the project area.
Onychomys torridus ramona	southern grasshopper mouse	N/N	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover.	Feeds almost exclusively on arthropods, especially scorpions & orthopteran insects.	Low to moderate. This species has a potential to occur along the margins of the southern half of the project area near the Santa Ana River floodplain.
Perognathus longimembris brevinasus	Los Angeles pocket mouse	N/N	Lower elevation grasslands & coastal sage communities in and around the Los Angeles basin.	Open ground with fine sandy soils. May not dig extensive burrows, hiding under weeds & dead leaves instead.	Low to moderate. This species has a potential to occur along the margins of the southern half of the project area near the Santa Ana River floodplain.
Phrynosoma coronatum (blainvillii population*)*	coast (San Diego) horned lizard	N/N	Inhabits coastal sage scrub and chaparral in arid and semi-arid climate conditions.	Prefers friable, rocky, or shallow sandy soils.	Low to moderate. This species has a potential to occur along the margins of the southern half of the project area near the Santa Ana River floodplain.
Polioptila californica californica	coastal California gnatcatcher	T/N	Obligate, permanent resident of coastal sage scrub below 2500 ft in southern California.	Low, coastal sage scrub in arid washes, on mesas & slopes. Not all areas classified as coastal sage scrub are occupied.	Extremely low. No suitable habitat exists in the project area.

Scientific name	Common Name	Status fed./State	General Habitat	Micro Habitat	Occurrence Potential
Rana muscosa	Sierra Madre yellow-legged frog	E/N	Federal listing refers to populations in the san Gabriel, San Jacinto & San Bernardino mountains only.	Always encountered within a few feet of water. Tadpoles may require 2 - 4 yrs to complete their aquatic development.	Extremely low. No suitable habitat exists in the project area.
Rhaphiomidas terminatus abdominalis	Delhi Sands flower-loving fly	E/N	Found only in areas of the Delhi sands formation in southwestern San Bernardino & northwestern Riverside Counties.	Requires fine, sandy soils, often with wholly or partly consolidated dunes & sparse vegetation. Oviposition req. Shade.	Extremely low. No suitable habitat exists in the project area.
Rhinichthys osculus ssp. *3*	Santa Ana speckled dace	N/N	Headwaters of the Santa Ana and San Gabriel Rivers. May be extirpated from the Los Angeles River system.	Requires permanent flowing streams with summer water temps of 17-20 c. Usually inhabits shallow cobble and gravel riffle	Low. No suitable habitat exists in the project area.
Ribes divaricatum var. *parishii*	Parish's gooseberry	N/N	Riparian woodland.	Salix swales in riparian habitats. 65-100m.	Low. This species has potential to occur in areas where riparian habitat exists.
Riversidian Alluvial Fan Sage Scrub	Riversidian Alluvial Fan Sage Scrub	N/N			Present in the south half of the project area within the Santa Ana River floodplain.
Sidalcea neomexicana	Salt Spring checkerbloom	N/N	Alkali playas, brackish marshes, chaparral, coastal scrub, lower montane coniferous forest, mojavean desert scrub.	Alkali springs and marshes. 0-1500m.	Extremely low. No suitable habitat exists in the project area.
Southern Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest	N/N			Not present.

Scientific name	Common Name	Status fed./State	General Habitat	Micro Habitat	Occurrence Potential
Southern Cottonwood Willow Riparian Forest	Southern Cottonwood Willow Riparian Forest	N/N			Present in the south half of the project area within the Santa Ana River floodplain.
Southern Riparian Scrub	Southern Riparian Scrub	N/N			Present in the south half of the project area within the Santa Ana River floodplain.
Southern Sycamore Alder Riparian Woodland	Southern Sycamore Alder Riparian Woodland	N/N			Not present.
Symphyotrichum defoliatum	San Bernardino aster	N/N	Meadows and seeps, marshes and swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, grassland.	Vernally mesic grassland or near ditches, streams and springs; disturbed areas. 2-2040m.	Extremely low. No suitable habitat exists in the project area.
Taxidea taxus	American badger	N/N	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	Need sufficient food, friable soils & open, uncultivated ground. Prey on burrowing rodents. Dig burrows.	Extremely low. No suitable habitat exists in the project area.
Vireo bellii pusillus	least Bell's vireo	E/E	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft.	Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis, mesquite.	Moderate. This species has been documented in the riparian habitat in Santa Ana River floodplain between the I-215 and the Mission Creek confluence.

Coding and Terms

E= Endangered T = Threatened SC= Species of Concern N= None
R= Rare C= Candidate PE= Proposed Endangered N/A= Not Applicable

Federal Species of Concern: "taxa for which the U.S. Fish and Wildlife Service has information that indicates proposing to list the taxa as endangered or threatened is possibly appropriate, but for which substantial data on the biological vulnerability and threats are not currently known or on file to support the immediate preparation of rules." (Arnold). All of these species have a limited range. In fact, some species are limited to the San Bernardino Mountains area, however, they are locally common.

State Species of Special Concern: An administrative designation given to vertebrate species that appear to be vulnerable to extinction because of declining populations, limited acreages, and/or continuing threats. Raptor and owls are protected under section 3502.5 of the California Fish and Game code: “It is unlawful to take, posses or destroy any birds in the orders Falconiformes or Strigiformes or to take, possess or destroy the nest or eggs of any such bird.”

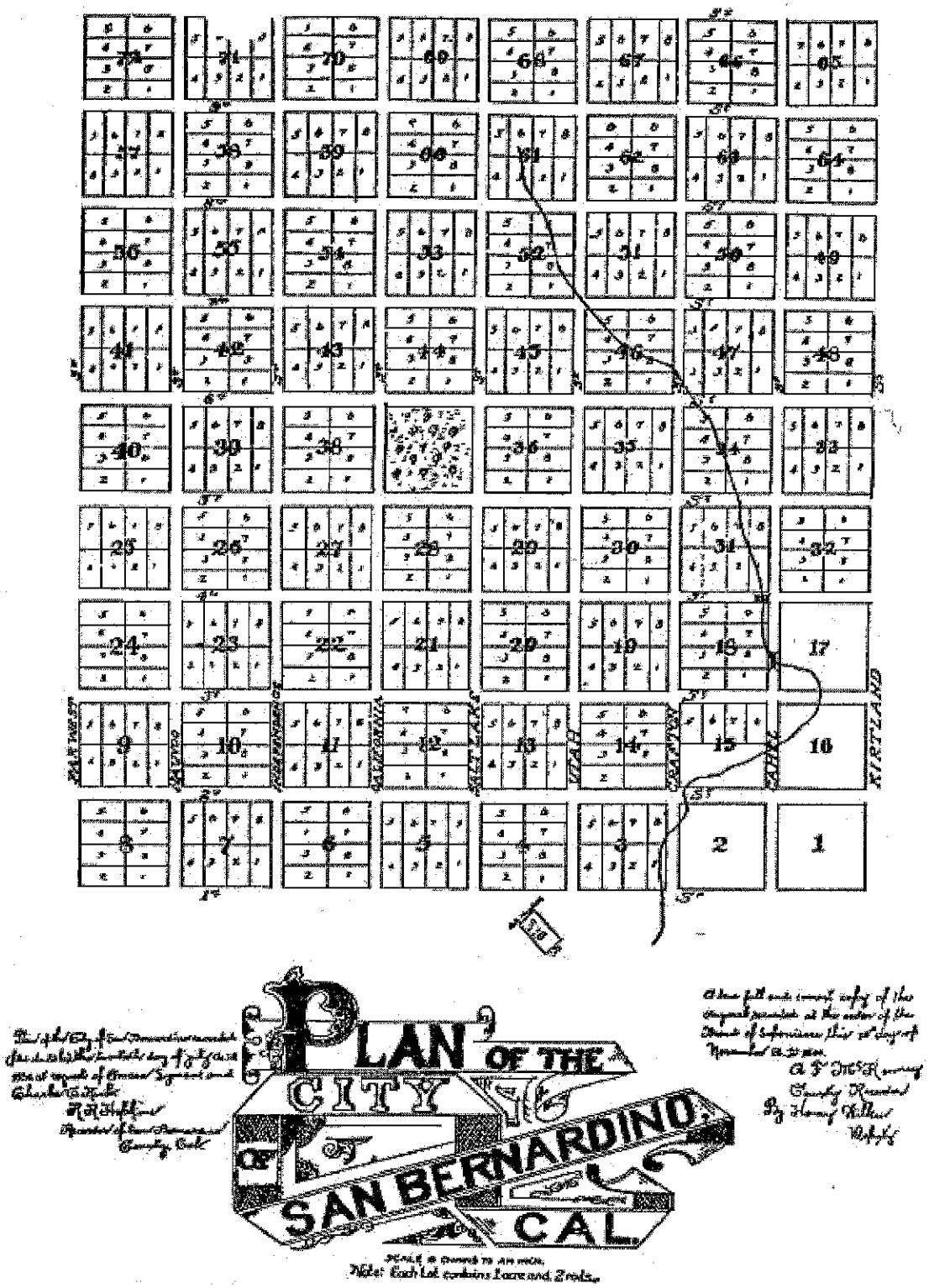
State Plant Rankings:

S1 - less than 6 element occurrences, or less than 1,000 individuals, or less than 2,000 acres
S2 - 6 to 20 element occurrences, or between 1,000 and 3,000 individuals, or between 2,000 and 10,000 acres
S3 - 21 to 100 element occurrences, or between 3,000 and 10,000 individuals, or between 10,000 and 50,000 acres
S4 - No Threat Rank
S5 - No Threat Rank
.1 - very threatened SH - all sites in California are historical
.2 - threatened
.3 - no current threats known

APPENDIX E1

CULTURAL RESOURCES APPENDIX 1 – ORIGINAL PLAN OF THE CITY OF SAN BERNARDINO

ORIGINAL PLAN OF THE CITY OF SAN BERNARDINO



Original plat of the city of San Bernardino, 1853.

from:

Shaw, Steven
2009 "Fort San Bernardino". In *History of San Bernardino*.
www.ci.san-bernardino.ca.us/about/history

APPENDIX E2

CULTURAL RESOURCES APPENDIX 2 – INFORMATION ON SUBDIVISIONS IN SAN BERNARDINO BASED ON ASSESSOR'S MAP BOOKS AND COUNTY RECORDERS MAP BOOKS

INFORMATION ON SUBDIVISIONS IN SAN BERNARDINO BASED ON ASSESSOR'S MAP BOOKS AND COUNTY RECORDERS MAP BOOKS

INFORMATION ON SUBDIVISIONS

The study areas are within the following school districts:

San Bernardino City School District and San Bernardino Outside School District, established 1851 (Hill 1958).

Mill School District, established 1867 (Hill 1958).

Mission School District, established 1865 (Hill 1958).

Colton Outside School District, established 1877 (Hill 1958; Smith 1954).

References:

Hill, Merton E.
1958 *A Century of Public Education in San Bernardino County, California, 1850-1958.* Published by Merton E. Hill, San Bernardino, California.

Smith, Gerald A.
1954 *A History of the County School Administration of San Bernardino County, California.* Published by the San Bernardino County Historical Society.

Within the school district areas, there are smaller subdivisions encompassed by the study areas. The San Bernardino County Historic Archives do not have detailed information on the following subdivisions:

Tract 2170
Bedford Brothers Subdivision
Fifth Street Place Subdivision Tract No. 2030
Fifth Street Place Unit No. 2 Tract No. 2275
F. J. Halls Subdivision
Harris Subdivision
Hurley Subdivision
Liberty Subdivision Tract No. 1765
Porters Subdivision
The Peppers Subdivision
Victoria Farms Tract No. 2038
Victoria Subdivision Tract No. 2948

Information from the Archives on the remaining subdivisions is presented below:

Amended Baldridge Subdivision

Lot 1, Block 5 of Rancho San Bernardino

Surveyed May, 1909 by A. L. Sloan.

Recorded at the request of Elizabeth Baldridge on May 22, 1909, and by W. W. Swing on July 26, 1909.

Reference:

San Bernardino County Archives
1909 County Recorder's Map Book 17, Page 38.

Bennetts Subdivision

North half of Block 41 of Rancho San Bernardino

Recorded at the request of Charles Bennett on April 15, 1886.

Reference:

San Bernardino County Archives
1886 County Recorder's Map Book 3, Page 15.

J. S. Bright Subdivision

Subdivision of Lots 7 and 8 and a strip 48 feet 6 inches wide off the east side of Lot 6 of Block 51 of the City of San Bernardino

Surveyed by E. A. Smith on April 5, 1887.

Recorded at the request of J. S. Bright on April 7, 1887.

Reference:

San Bernardino County Archives
1887 County Recorder's Map Book 4, Page 4.

Brown and Waterman Subdivision

Subdivision of a portion of the East ½ of Lots 6, 7, 8, and 9 of Block 11 of Rancho San Bernardino

Surveyed January, 1906 by Will L. Brown.

Recorded at the request of Will L. Brown on February 10, 1906.

Reference:

San Bernardino County Archives
1906 County Recorder's Map Book 16, Page 31.

Cypress Tract

Horner and Bandholt's sub-division of Lots 3, 4, and 5 of Block 5 of Rancho San Bernardino

Recorded at the request of Horner and Bandholt on August 29, 1887.

Reference:

San Bernardino County Archives
1887 County Recorder's Map Book 3, Page 85.

Farnsworths Subdivision

Lots 1 and 8 of Block 20 of the Town of San Bernardino

Recorded at the request of Farnsworth on July 23, 1885.

Reference:

San Bernardino County Archives
1885 County Recorder's Map Book 7, Page 16.

Goodletts Subdivision

Block 24 of the City of San Bernardino

Recorded at the request of J. B. Goodlett on March 26, 1888.

Reference:

San Bernardino County Archives
1888 County Recorder's Map Book 8, Page 5.

Henderson Tract

Subdivision of a portion of Lots 2, 3, 6, and 7 of Block 3 of the City of San Bernardino

Recorded at the request of Clum and O'Connor on May 18, 1888.

Reference:

San Bernardino County Archives
1888 County Recorder's Map Book 8, Page 14.

Keirs Subdivision

Lot 4 of Block 19 of the City of San Bernardino

Surveyed by J. B. Pope on April 25, 1898.

Recorded at the request of A. Kier, Mrs. Marian Hasson, Mrs. M. K. Johnson, Mrs. M. M. Cochran, Mrs. Ann Jackson, and Mrs. J. M. Johnson on July 13, 1898.

Reference:

San Bernardino County Archives
1898 County Recorder's Map Book 13, Page 14.

Meadowbrook Park Subdivision

Block 17 of the City of San Bernardino

Surveyed by Will L. Brown in May, 1907.

Recorded at the request of G. A. Atwood and H. H. Ford on December 21, 1908.

Reference:

San Bernardino County Archives
1908 County Recorder's Map Book 17, Page 14.

Norton and Hay Subdivision

Block 56 of the City of San Bernardino

Recorded at the request of C. E. Norton and W. A. Hay on December 1, 1904.

Reference:

San Bernardino County Archives
1904 County Recorder's Map Book 16, Page 7.

Sunnyside Addition

Recorded at the request of William D. Frazee on July 14, 1875.

Reference:

San Bernardino County Archives
1875 County Recorder's Map Book 1, Page 35.

Ward and Courtney Subdivision

Lot 13 of Block 16 of Rancho San Bernardino

Surveyed by A. L. Sloan in October, 1908.

Recorded at the request of J. J. Hanford on October 5, 1909.

Reference:

San Bernardino County Archives
1909 County Recorder's Map Book 17, Page 46.

J. W. Waters Subdivision

Blocks 7, 8, 9, and 10 of the Town of San Bernardino

Recorded at the request of J. W. Waters in April, 1888.

Reference:

San Bernardino County Archives
1888 County Recorder's Map Book 6, Page 47.

Whites Subdivision (and Whites Subdivision No. 2)

Subdivision of a portion of Blocks G, H, C, and D of the City of San Bernardino

Surveyed by M. L. Cook in March, 1922.

Recorded at the request of the Security Investment Company of San Bernardino, W. H. Seward (president) and E. E. Seeley (secretary) in 1922.

Reference:

San Bernardino County Archives
1922 County Recorder's Map Book 23, Page 31.

Wozencraft Place

Subdivision of Lots 6, 7, 8, 9, and 10 of Block 5 of Rancho San Bernardino

Surveyed by E. A. Smith in 1887.

Recorded at the request of G. L. Hisom on October 17, 1887.

Reference:

San Bernardino County Archives
1887 County Recorder's Map Book 5, Page 47.

Subdivisions within Study Areas

Tri City (northeastern area with this name)

Within San Bernardino Outside School District.

No subdivisions or tracts indicated in historical Assessor's Map Books.

Reference:

San Bernardino County Archives
ca. 1920-1959 Assessor's Map Book 13, San Bernardino Outside School District.

Tri City (southern area with this name)

Within Colton Outside School District.

Not covered by available historical Assessor's Map Books.

Southeast (western area with this name, north of Santa Ana River)

Within Mill School District.

Not covered by available historical Assessor's Map Books.

Southeast (western area with this name, south of Santa Ana River)

Within Colton Outside School District.

Not covered by available historical Assessor's Map Books.

Southeast (eastern area with this name)

Within Mission School District.

Encompasses the following:

Victoria Farms Tract No. 2038
Victoria Subdivision Tract No. 2948

Reference:

San Bernardino County Archives
ca. 1920-1959 Assessor's Map Book 53, Mission School District.

CC North

Within San Bernardino City School District.

Encompasses the following:

Bennetts Subdivision
J. S. Bright Subdivision
Norton and Hay Subdivision
Porters Subdivision
Ward and Courtney Subdivision

Reference:

San Bernardino County Archives
ca. 1920-1959 Assessor's Map Book 16, San Bernardino City School District.

CC East

Within San Bernardino City School District.

Encompasses the following:

Amended Baldridge Subdivision
Cypress Tract
Fifth Street Place Subdivision Tract No. 2030
Fifth Street Place Unit No. 2 Tract No. 2275
Meadowbrook Park Subdivision
Wozencraft Place

Reference:

San Bernardino County Archives
ca. 1920-1959 Assessor's Map Book 16, San Bernardino City School District.

CC South

Within San Bernardino City School District.

Encompasses the following:

Brown and Waterman Subdivision
F. J. Halls Subdivision
Liberty Subdivision Tract No. 1765
Sunnyside Addition
The Peppers Subdivision
J. W. Waters Subdivision
Whites Subdivision
Whites Subdivision No. 2

Reference:

San Bernardino County Archives
ca. 1920-1959 Assessor's Map Book 16, San Bernardino City School District.

CC Meadowbrook

Within San Bernardino City School District.

Encompasses the following:

Bedford Brothers Subdivision
Farnsworth Subdivision
Goodlets Subdivision
F. J. Halls Subdivision
Harris Subdivision
Henderson Tract
Hurley Subdivision
Keirs Subdivision
The Peppers Subdivision
J. W. Waters Subdivision

Reference:

San Bernardino County Archives
ca. 1920-1959 Assessor's Map Book 16, San Bernardino City School District.

South Valley

Within Colton Outside School District.

Encompasses the following:

Tract 2170

Reference:

San Bernardino County Archives
ca. 1920-1959 Assessor's Map Book 41, Colton Outside School District.

APPENDIX E3

CULTURAL RESOURCES APPENDIX 3 – HISTORIC PROPERTY DATA FILE FOR THE CITY OF SAN BERNARDINO ON FILE AT THE SAN BERNARDINO ARCHAEOLOGICAL INFORMATION CENTER, SAN BERNARDINO COUNTY MUSEUM, REDLANDS

HISTORIC PROPERTY DATA FILE FOR THE CITY OF SAN BERNARDINO ON FILE AT THE SAN BERNARDINO ARCHAEOLOGICAL INFORMATION CENTER, SAN BERNARDINO COUNTY MUSEUM, REDLANDS

SAN BERNARDINO

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
107534	36-017641	138 S RIVERSIDE AVE	RIALTO COINS	RIALTO	P	1895	HIST.SURV.	2376-0085-0000	04/22/97	7N1	A
107536	36-017642	142 S RIVERSIDE AVE		RIALTO	P	1929	HIST.SURV.	2376-0086-0000	04/22/97	6L	AC
107537	36-017643	228 S RIVERSIDE AVE		RIALTO	P	1896	HIST.SURV.	2376-0087-0000	04/22/97	7N1	A
139922		1558 S RIVERSIDE AVE		RIALTO	M		HIST.RES.	DOE-36-03-0019-0000	05/15/03	6Y	
							PROJ.REVW.	FCC030501C	05/15/03	6Y	
107542	36-017644	311 S SYCAMORE AVE	VAN FRANK HOUSE	RIALTO	P	1888	HIST.SURV.	2376-0091-0000	04/22/97	3S	ABC
107539	36-017653	184 W 2ND ST		RIALTO	P	1885	HIST.SURV.	2376-0088-0000	04/22/97	5S2	A
107334	36-017645	462 W FOOTHILL BLVD	LAUTERBORN HOUSE	RIALTO	P	1902	HIST.SURV.	2376-0023-0000	04/14/97	6L	C
107335	36-017646	1516 W FOOTHILL BLVD		RIALTO	P	1928	HIST.SURV.	2376-0024-0000	04/14/97	5S2	A
107336	36-017647	1526 W FOOTHILL BLVD	KENTUCK U IN MOTEL	RIALTO	P	1928	HIST.SURV.	2376-0025-0000	04/14/97	5S2	A
107337	36-017648	1536 W FOOTHILL BLVD		RIALTO	P	1928	HIST.SURV.	2376-0026-0000	04/14/97	5S2	A
107340	36-017649	1568 W FOOTHILL BLVD		RIALTO	P	1928	HIST.SURV.	2376-0027-0000	04/15/97	5S2	C
107349	36-017650	1510 W MERRILL AVE		RIALTO	P	1927	HIST.SURV.	2376-0033-0000	04/15/97	5S2	AC
107496	36-017651	520 W RANDALL AVE		RIALTO	P	1914	HIST.SURV.	2376-0058-0000	04/21/97	5S2	C
107494	36-017652	1284 W RANDALL AVE		RIALTO	P	1933	HIST.SURV.	2376-0057-0000	04/21/97	6L	C
162237		STRAWBERRY LOOKOUT RD	STRAWBERRY PEAK TELECOMMUNICATIONS	RIM FOREST	P	1954	PROJ.REVW.	USFS050926A	11/07/05	6Y	
090436	36-017654	SR 18	DALEY TOLL ROAD MONUMENT	(VIC) RIM FOREST	S	1870	HIST.RES.	SHL-0579-0000	05/17/57	7L	
128622			JEDEDIAH SMITH MEMORIAL PLAQUE	SAN BERNARDINO	C	1951	HIST.RES.	NPS-97001632-0014	01/12/98	6X	
128616			CHARLES RICH AND AMASA LYMAN MEMOR	SAN BERNARDINO	C	1932	HIST.RES.	NPS-97001632-0008	01/12/98	1D	AC
124667	36-019633		ATTWS COMMUNICATIONS FACILITIES SI	SAN BERNARDINO	P		PROJ.REVW.	FCC000323B	03/29/00	6Y	
128621			PIONEER MOTHERS MEMORIAL SUNDIAL	SAN BERNARDINO	C	1967	HIST.RES.	NPS-97001632-0013	01/12/98	6X	
128620			FOUNTAIN	SAN BERNARDINO	C	1959	HIST.RES.	NPS-97001632-0012	01/12/98	6X	
128619			FOUNTAIN	SAN BERNARDINO	C		HIST.RES.	NPS-97001632-0011	01/12/98	6X	
128626			CRIME VICTIMS MEMORIAL	SAN BERNARDINO	C		HIST.RES.	NPS-97001632-0019	01/12/98	6X	
128618			'T-WING' ADDITION / SAN BERNARDINO	SAN BERNARDINO	C	1959	HIST.RES.	NPS-97001632-0010	01/12/98	6X	
128625			'ON THE WINGS OF EAGLES' SCULPTURE	SAN BERNARDINO	C	1983	HIST.RES.	NPS-97001632-0018	01/12/98	6X	
128608			CENTRAL HEATING PLANT / CENTRAL PL	SAN BERNARDINO	C	1940	HIST.RES.	NPS-97001632-0003	01/12/98	1D	AC
128610			CARVED SANDSTONE FINIAL #1 FROM 18	SAN BERNARDINO	C	1893	HIST.RES.	NPS-97001632-0004	01/12/98	1D	CA
128617			STORAGE VAULTS	SAN BERNARDINO	C	1939	HIST.RES.	NPS-97001632-0009	01/12/98	6X	
128624			FRANKLIN D. ROOSEVELT-CIVILIAN CON	SAN BERNARDINO	C	1993	HIST.RES.	NPS-97001632-0017	01/12/98	6X	
128611			CARVED SANDSTONE FINIAL #2 FROM 18	SAN BERNARDINO	C	1893	HIST.RES.	NPS-97001632-0005	01/12/98	1D	AC
128612			ALBERT GLENN KENDALL MEMORIAL FOUN	SAN BERNARDINO	C	1929	HIST.RES.	NPS-97001632-0006	01/12/98	1D	AC
128613			NATIVE DAUGHTERS OF THE GOLDEN WES	SAN BERNARDINO	C	1930	HIST.RES.	NPS-97001632-0007	01/12/98	1D	AC
128623			WILL C. COLLETT PLAQUE	SAN BERNARDINO	C	1964	HIST.RES.	NPS-97001632-0015	01/12/98	6X	
174939			VIADUCT BOULEVARD DITCH	SAN BERNARDINO	M		PROJ.REVW.	FHWA090209A	03/05/09	6Y	
174938			SANTA FE DITCH	SAN BERNARDINO	M	1918	PROJ.REVW.	FHWA090209A	03/05/09	6Y	
068389	36-017655	0	KRAMER	SAN BERNARDINO	U		HIST.RES.	DOE-36-89-0009-0000	07/25/89	6Y	
							PROJ.REVW.	BLM890718A	07/25/89	6Y	
124746	36-019679	168 13TH ST	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1949	PROJ.REVW.	HUD000605AY	06/15/00	6Y	
124721	36-019656	1015 13TH ST	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1932	PROJ.REVW.	HUD000605AC	06/15/00	6Y	
124720	36-019655	1050 13TH ST	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1937	PROJ.REVW.	HUD000605AD	06/15/00	6Y	
124733	36-019666	348 13TH ST W	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1945	PROJ.REVW.	HUD000605AM	06/15/00	6Y	
124731	36-019664	372 14TH ST W	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1912	PROJ.REVW.	HUD000605AK	06/15/00	6Y	
124747	36-019680	927 14TH ST W	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1927	PROJ.REVW.	HUD000605AZ	06/15/00	6Y	
124734	36-019667	932 14TH ST W	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1930	PROJ.REVW.	HUD000605AN	06/15/00	6Y	
169977		108 16TH ST		SAN BERNARDINO	P	1952	PROJ.REVW.	HUD080207D	02/13/08	6Y	
124732	36-019665	264 17TH ST W	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1945	PROJ.REVW.	HUD000605AL	06/15/00	6Y	
124717	36-019652	324 18TH ST W	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1930	PROJ.REVW.	HUD000605Z	06/15/00	6Y	
173101		1517 21ST ST		SAN BERNARDINO	P	1947	PROJ.REVW.	HUD080916B	09/19/08	6Y	
169779		771 24TH ST		SAN BERNARDINO	P	1938	PROJ.REVW.	HUD071228A	01/08/08	6Y	
077339	36-017656	25TH ST	25TH STREET HISTORIC DISTRICT	SAN BERNARDINO	D	1920	HIST.RES.	SPHI-SBR-119	08/21/92	7L	
							ST.PT.INT.	36-0015	06/24/92	7L	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
165318		976 2ND ST		SAN BERNARDINO	P	1920	PROJ.REVW.	HUD070228D	03/05/07	6Y	
062744	36-017657	3RD ST	DAUGHTERS OF UTAH PIONEERS PLAQUE	SAN BERNARDINO	M	1964	HIST.RES.	NPS-97001632-0016	01/12/98	6X	
							HIST.SURV.	2401-0003-0000		7R	
167850		325 40TH ST		SAN BERNARDINO	P	1953	PROJ.REVW.	HUD070904J	09/17/07	6Y	
091006	36-017658	4TH ST	BELLA UNION HOTEL SITE	SAN BERNARDINO	P	1857	HIST.RES.	SPHI-SBR-015	01/31/73	7L	
091049	36-017659	4TH ST	MORMON SCHOOLS SITE	SAN BERNARDINO	D	1854	HIST.RES.	SPHI-SBR-062	08/07/75	7L	
091040	36-017660	4TH ST	JEDEDIAH SMITH MONUMENT	SAN BERNARDINO	U		HIST.RES.	SPHI-SBR-051	08/07/75	7L	
090995	36-017661	234 4TH ST	ATWOOD ADOBE SITE	SAN BERNARDINO	U		HIST.RES.	SPHI-SBR-005	04/25/72	7L	
091053	36-017662	5TH ST	CONFEDERATE ATTACK MARKER SITE	SAN BERNARDINO	U		HIST.RES.	SPHI-SBR-067	08/07/75	7L	
091087	36-017663	126 E. 5TH ST	MARTIN ADOBE SITE	SAN BERNARDINO	S	1857	HIST.RES.	SPHI-SBR-111	07/01/87	7L	
091013	36-017664	7TH ST	PIONEER CEMETERY	SAN BERNARDINO	M	1851	HIST.RES.	SPHI-SBR-024	01/31/73	7L	
091077	36-017665	8TH ST	STURGES AUDITORIUM	SAN BERNARDINO	U	1927	HIST.RES.	SPHI-SBR-100	01/14/83	7L	
091030	36-017666	8TH ST	HOME OF ETERNITY CEMETERY OF CONGR	SAN BERNARDINO	P		HIST.RES.	SPHI-SBR-044	03/20/75	7L	
169036		359 8TH ST		SAN BERNARDINO	P	1920	PROJ.REVW.	HUD071115C	11/21/07	6Y	
124745	36-019678	1369 9TH ST W	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1934	PROJ.REVW.	HUD000605AX	06/15/00	6Y	
112533	36-017667	402 ALDER ST		SAN BERNARDINO	P	1942	HIST.RES.	DOE-36-97-0004-0000	10/27/97	6Y	
							PROJ.REVW.	HUD970902AS	10/27/97	6Y	
162863		1242 ALEXANDER AVE		SAN BERNARDINO	P	1949	PROJ.REVW.	HUD060815B	08/16/06	6Y	
097617	36-017668	1176 AMOS AVE		SAN BERNARDINO	P	1938	HIST.RES.	DOE-36-95-0003-0000	10/17/95	6Y	
							PROJ.REVW.	FHWA950905A	10/17/95	6Y	
089944	36-017670	ARROWHEAD AVE	MORMON STOCKADE SITE	SAN BERNARDINO	M	1851	HIST.RES.	SHL-0044-0000	08/01/32	7L	
091052	36-017669	ARROWHEAD AVE	PIONEER MONUMENT	SAN BERNARDINO	U	1965	HIST.RES.	SPHI-SBR-066	08/07/75	7L	
124749	36-019682	1707 ARROWHEAD AVE N	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1926	PROJ.REVW.	HUD000605BB	06/15/00	6Y	
128186		1520 BASELINE AVE		SAN BERNARDINO	P	1940	HIST.RES.	DOE-36-01-0001-0000	04/30/01	6Y	
							PROJ.REVW.	FCC010326F	04/30/01	6Y	
124753	36-019686	1140 BELLEVIEW ST	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1910	PROJ.REVW.	HUD000605BF	06/15/00	6Y	
124718	36-019653	7524 BONNIE ST	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1937	PROJ.REVW.	HUD000605AA	06/15/00	6Y	
155322		CAJON BLVD	ROUTE 66 /CAJON PASS /CAJON BOULEV	SAN BERNARDINO	M	1926	NAT.REG.	36-0089	09/06/05	7J	
124770	36-019692	1659 CAJON BLVD	REVIEW OF PBW FACILITY CM 240-11,	SAN BERNARDINO	P		PROJ.REVW.	FCC000530K	06/15/00	6Y	
077448	36-017671	2600 CAJON BLVD	ETHYL CORPORATION	SAN BERNARDINO	P		HIST.RES.	DOE-36-92-0001-0000	08/12/92	2S2	C
							PROJ.REVW.	FHWA920619A	08/12/92	2S2	C
175037		831 CAMPUS WY		SAN BERNARDINO	P		PROJ.REVW.	HUD090225D	03/18/09	6Y	
103628	36-017676	CENTRAL AVE	PATTON STATE HOSPITAL / GROUP 3 RE	SAN BERNARDINO	S	1930	HIST.RES.	DOE-36-96-0001-0007	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103627	36-017672	CENTRAL AVE	PATTON STATE HOSPITAL / GROUP 2 RE	SAN BERNARDINO	S	1930	HIST.RES.	DOE-36-96-0001-0006	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103629	36-017677	CENTRAL AVE	PATTON STATE HOSPITAL/R BUILDING/C	SAN BERNARDINO	S	1933	HIST.RES.	DOE-36-96-0001-0008	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103625	36-017673	CENTRAL AVE	PATTON STATE HOSPITAL / GROUP 1 RE	SAN BERNARDINO	S	1930	HIST.RES.	DOE-36-96-0001-0005	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103630	36-017674	CENTRAL AVE	PATTON STATE HOSPITAL/M BUILDING/	SAN BERNARDINO	S	1913	HIST.RES.	DOE-36-96-0001-0009	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
118836	36-018788	CENTRAL AVE	PATTON STATE HOSPITAL/O BUILDING	SAN BERNARDINO	S	1916	HIST.RES.	DOE-36-96-0001-0040	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103943	36-017685	CIRCLE DR	PATTON STATE HOSPITAL / RESIDENCE	SAN BERNARDINO	S	1931	HIST.RES.	DOE-36-96-0001-0029	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103938	36-017678	CIRCLE DR	PATTON STATE HOSPITAL / RESIDENCE	SAN BERNARDINO	S	1912	HIST.RES.	DOE-36-96-0001-0028	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103877	36-017684	CIRCLE DR	PATTON STATE HOSPITAL/YOUTH CENTER	SAN BERNARDINO	S	1913	HIST.RES.	DOE-36-96-0001-0018	08/29/96	2D2	AC
							PROJ.REVW.	HUD9604234	08/29/96	2D2	AC
103637	36-017695	CIRCLE DR	PATTON STATE HOSPITAL / STAFF DEVE	SAN BERNARDINO	S	1913	HIST.RES.	DOE-36-96-0001-0016	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
103886	36-017681	CIRCLE DR	PATTON STATE HOSPITAL/E BUILDING	SAN BERNARDINO	S	1939	HIST.RES.	DOE-36-96-0001-0020	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103882	36-017679	CIRCLE DR	PATTON STATE HOSPITAL/STUDENT EDUC	SAN BERNARDINO	S	1913	HIST.RES.	DOE-36-96-0001-0019	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103634	36-017680	CIRCLE DR	PATTON STATE HOSPITAL/RESIDENCE 2	SAN BERNARDINO	S	1900	HIST.RES.	DOE-36-96-0001-0013	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103635	36-017686	CIRCLE DR	PATTON STATE HOSPITAL / STAFF DEVE	SAN BERNARDINO	S	1913	HIST.RES.	DOE-36-96-0001-0014	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103632	36-017683	CIRCLE DR	PATTON STATE HOSPITAL/A-B BUILDING	SAN BERNARDINO	S	1926	HIST.RES.	DOE-36-96-0001-0011	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103633	36-017682	CIRCLE DR	PATTON STATE HOSPITAL/RESIDENCE 1	SAN BERNARDINO	S	1915	HIST.RES.	DOE-36-96-0001-0012	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
118830	36-018782	CIRCLE DR	PATTON STATE HOSPITAL/H BUILDING	SAN BERNARDINO	S	1925	HIST.RES.	DOE-36-96-0001-0034	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
118834	36-018786	CIRCLE DR	PATTON STATE HOSPITAL/AREA OFFICE	SAN BERNARDINO	S	1926	HIST.RES.	DOE-36-96-0001-0038	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
118835	36-018787	CIRCLE DR	PATTON STATE HOSPITAL / VOLUNTEER	SAN BERNARDINO	S	1916	HIST.RES.	DOE-36-96-0001-0039	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
111177	36-017687	864 CONGRESS ST	cc South	SAN BERNARDINO	P	1951	HIST.RES.	DOE-36-92-0175-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111179	36-017688	865 CONGRESS ST		SAN BERNARDINO	P	1922	HIST.RES.	DOE-36-92-0176-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111036	36-017689	873 CONGRESS ST		SAN BERNARDINO	P	1928	HIST.RES.	DOE-36-92-0109-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111035	36-017690	880 CONGRESS ST		SAN BERNARDINO	P	1920	HIST.RES.	DOE-36-92-0108-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
095374	36-017691	1024 CONGRESS ST		SAN BERNARDINO	P	1940	PROJ.REVW.	HUD950130V	03/30/95	6Y	
103932	36-017692	COTTAGE LANE	PATTON STATE HOSPITAL/W BUILDING	SAN BERNARDINO	S	1924	HIST.RES.	DOE-36-96-0001-0026	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
091047	36-017693	D ST	FRED T. PERRIS HOUSE SITE	SAN BERNARDINO	U		HIST.RES.	SPHI-SBR-060	08/07/75	7L	
103303	36-017694	DATE ST	LANDSCAPE BUILDING	SAN BERNARDINO	S	1934	HIST.RES.	DOE-36-96-0001-0001	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
095832	36-017696	172 E 11TH ST		SAN BERNARDINO	P	1945	PROJ.REVW.	HUD950316Q	05/10/95	6Y	
163452		254 E 11TH ST		SAN BERNARDINO	P	1950	PROJ.REVW.	HUD060925D	09/26/06	6Y	
096320	36-017697	149 E 19TH ST		SAN BERNARDINO	P	1930	PROJ.REVW.	HUD950518D	06/21/95	6Y	
154814		266 E 3RD ST cc East	SAN BERNARDINO ARMORY	SAN BERNARDINO	S	1950	PROJ.REVW.	USA030317K	03/27/03	6Y	
062742	36-017698	120 E 5TH ST	MARTIN ADOBE	SAN BERNARDINO	S	1860	HIST.SURV.	2401-0001-0000		3S	
137749		25502 E 5TH ST		SAN BERNARDINO	P	1943	HIST.RES.	DOE-36-03-0004-0000	02/11/03	6Y	
							PROJ.REVW.	HUD030206C	02/11/03	6Y	
133076		155 E BASELINE ST		SAN BERNARDINO	P	1912	HIST.RES.	DOE-36-00-0555-0000	08/07/00	6Y	
							PROJ.REVW.	HUD000703V	08/07/00	6Y	
136399		220 E BASELINE ST	NATIONAL LIFE AND ACCIDENT INSURAN	SAN BERNARDINO	P	1950	HIST.RES.	DOE-36-02-0033-0000	11/18/02	6Y	
							PROJ.REVW.	FCC021015B	11/18/02	6Y	
103302	36-017699	3102 E HIGHLAND AVE	PATTON STATE HOSPITAL HISTORIC DIS	SAN BERNARDINO	S	1900	HIST.RES.	DOE-36-96-0001-9999	08/29/96	2S2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2S2	AC
095628	36-017700	245 E OLIVE ST		SAN BERNARDINO	P	1942	PROJ.REVW.	HUD950301H	04/17/95	6Y	
095955	36-017701	256 E RIALTO AVE		SAN BERNARDINO	P	1919	PROJ.REVW.	HUD950330A	05/26/95	6Y	
150315		256 E RIALTO AVE	RESIDENCE	SAN BERNARDINO	P	1917	HIST.RES.	DOE-34-04-0009-0000	12/17/04	6Y	
							PROJ.REVW.	HUD041117F	12/17/04	6Y	
091059	36-017703	E ST sites	OLD PIONEER CATHOLIC CEMETERY	SAN BERNARDINO	P		HIST.RES.	SPHI-SBR-074	12/22/75	7L	
091823	36-017702	E ST	CENTER OF SAN BERNARDINO, 1853	SAN BERNARDINO	U	1851	HIST.RES.	SPHI-SBR-016	01/31/73	7L	
102810	36-017704	209 E TEMPLE ST		SAN BERNARDINO	P	1930	PROJ.REVW.	HUD960627B	07/29/96	6Y	
154972		1651 ECHO DR		SAN BERNARDINO	P	1939	PROJ.REVW.	HUD050725P	08/10/05	6Y	
155817		3980 ELECTRIC AVE		SAN BERNARDINO	P	1924	PROJ.REVW.	HUD050928B	10/05/05	6Y	
167937		3986 ELECTRIC AVE		SAN BERNARDINO	P	1926	PROJ.REVW.	HUD070910D	09/12/07	6Y	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
154596		7199 ELM AVE		SAN BERNARDINO	P	1955	PROJ.REVW.	HUD050615N	06/24/05	6Y	
169714		7487 ELM ST		SAN BERNARDINO	P	1956	PROJ.REVW.	HUD071213G	12/18/07	6Y	
168012		6930 ELMWOOD RD		SAN BERNARDINO	P	1940	PROJ.REVW.	HUD070925A	10/01/07	6Y	
111184	36-017705	931 EVANS ST		SAN BERNARDINO	P	1954	HIST.RES.	DOE-36-92-0181-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
163354		1508 F ST		SAN BERNARDINO	P	1948	PROJ.REVW.	HUD061019H	10/19/06	6Y	
129084		2743 FAIRFAX DR		SAN BERNARDINO	P	1950	HIST.RES.	DOE-36-01-0006-0000	11/02/01	6Y	
							PROJ.REVW.	HUD011003F	11/02/01	6Y	
174049		530 FAIRMONT DR		SAN BERNARDINO	P	1949	PROJ.REVW.	HUD081106C	12/08/08	6Y	
162781		630 G ST — 36-013774 Same Bldg		SAN BERNARDINO	P	1914	PROJ.REVW.	HUD060530T	07/18/06	6Y	
106535	~~36-017706~~	~~3855 GENAVIEVE ST~~	SAN BERNARDINO RANGER UNIT HEADQUA	SAN BERNARDINO	S	1980	ST.AG.5024	ST.AG.-3540-0238	01/29/97	4CM	AD
106499	~~36-017707~~	3865 GENAVIEVE ST	SAN BERNARDINO RANGER UNIT HEADQUA	SAN BERNARDINO	P	1980	ST.AG.5024	ST.AG.-3540-0237	01/27/97	4CM	AD
106537	~~36-017708~~	3870 GENAVIEVE ST	SAN BERNARDINO RANGER UNIT HEADQUA	SAN BERNARDINO	S	1980	ST.AG.5024	ST.AG.-3540-0240	01/29/97	4CM	AD
106536	~~36-017709~~	3875 GENAVIEVE ST	SAN BERNARDINO RANGER UNIT HEADQUA	SAN BERNARDINO	S	1980	ST.AG.5024	ST.AG.-3540-0239	01/29/97	4CM	AD
124736	36-019669	1749 GENEVIEVE	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1945	PROJ.REVW.	HUD000605AP	06/15/00	6Y	
124735	36-019668	1523 GENEVIEVE ST	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1945	PROJ.REVW.	HUD000605AO	06/15/00	6Y	
144853		1574 GENEVIEVE ST		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-03-0039-0000	11/20/03	6Y	
							PROJ.REVW.	HUD031020B	11/20/03	6Y	
175116		2095 GENEVIEVE ST		SAN BERNARDINO	P	1936	PROJ.REVW.	HUD090326F	04/10/09	6Y	
173034		6931 GLASGOW AVE		SAN BERNARDINO	P	1938	PROJ.REVW.	HUD080718P	08/11/08	6Y	
111224	36-017710	867 HAZEL AVE		SAN BERNARDINO	P	1950	HIST.RES.	DOE-36-92-0209-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111225	36-017711	868 HAZEL AVE		SAN BERNARDINO	P	1936	HIST.RES.	DOE-36-92-0210-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111039	36-017712	878 HAZEL AVE		SAN BERNARDINO	P	1902	HIST.RES.	DOE-36-92-0112-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111226	36-017713	1085 HIGHLAND AVE	STATER BROS. SUPERMARKET	SAN BERNARDINO	P	1955	HIST.RES.	DOE-36-92-0211-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111020	36-017714	1148 HIGHLAND AVE		SAN BERNARDINO	P	1938	HIST.RES.	DOE-36-92-0094-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111227	36-017715	1155 HIGHLAND AVE		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0212-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111228	36-017716	1159 HIGHLAND AVE		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0213-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111229	36-017717	1208 HIGHLAND AVE		SAN BERNARDINO	P	1985	HIST.RES.	DOE-36-92-0214-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111246	36-017718	841 INLAND CENTER DR		SAN BERNARDINO	P		HIST.RES.	DOE-36-92-0246-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111247	36-017719	855 INLAND CENTER DR		SAN BERNARDINO	P	1937	HIST.RES.	DOE-36-92-0231-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
163225		3569 JUNE ST		SAN BERNARDINO	P	1950	PROJ.REVW.	HUD060911E	09/12/06	6Y	
124726	36-019660	1445 KENDALL DR	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1927	PROJ.REVW.	HUD000650AG	06/15/00	6Y	
124737	36-019670	1253 KING ST	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1932	PROJ.REVW.	HUD000605AQ	06/15/00	6Y	
124722	36-019657	120~~[illegible]~~ N.L ST	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1916	PROJ.REVW.	HUD000605AE	06/15/00	6Y	
167981		347 MACY ST		SAN BERNARDINO	P	1957	PROJ.REVW.	HUD070925E	10/15/07	6Y	
126706	36-019711	138 MAGNOLIA AVE		SAN BERNARDINO	Y	1920	HIST.RES.	DOE-36-00-0493-0000	10/27/00	6Y	
							PROJ.REVW.	HUD000921D	10/27/00	6Y	
124738	36-019671	380 MAGNOLIA AVE	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1912	PROJ.REVW.	HUD000605AR	06/15/00	6Y	
111250	36-017720	924 MAGNOLIA AVE		SAN BERNARDINO	P	1955	HIST.RES.	DOE-36-92-0233-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
164504		1387 MAGNOLIA AVE		SAN BERNARDINO	P	1925	PROJ.REVW.	HUD061218F	12/18/06	6Y	
101206	36-017721	1287 MASSACHUSETTS AVE		SAN BERNARDINO	P	1925	PROJ.REVW.	HUD960129D	03/15/96	6Y	
111251	36-017722	1877 MASSACHUSETTS AVE		SAN BERNARDINO	P	1940	HIST.RES.	DOE-36-92-0235-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
091050	36-017723	MILL ST site	MORMON FLOUR MILL SITE	SAN BERNARDINO	U		HIST.RES.	SPHI-SBR-063	08/07/75	7L	
111252	36-017724	760 MILL ST CC South		SAN BERNARDINO	P	1968	HIST.RES.	DOE-36-92-0236-0000	08/12/92	6Y	

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							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111253	36-017725	764 MILL ST cc south		SAN BERNARDINO	P	1937	HIST.RES.	DOE-36-92-0237-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111254	36-017726	908 MILL ST		SAN BERNARDINO	P	1982	HIST.RES.	DOE-36-92-0238-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111255	36-017727	990 MILL ST		SAN BERNARDINO	P	1955	HIST.RES.	DOE-36-92-0239-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
103935	36-017728	MILLER LANE	PATTON STATE HOSPITAL/OLD UPHOLSTE	SAN BERNARDINO	S	1917	HIST.RES.	DOE-36-96-0001-0027	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
111021	36-017729	2446 MIRAMONTE DR		SAN BERNARDINO	P	1930	HIST.RES.	DOE-36-92-0095-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111257	36-017730	2546 MIRAMONTE DR		SAN BERNARDINO	P	1955	HIST.RES.	DOE-36-92-0241-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111258	36-017731	2566 MIRAMONTE DR		SAN BERNARDINO	P	1955	HIST.RES.	DOE-36-92-0242-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
154770		MOUNT VERNON AVE	MOUNT VERNON AVENUE BRIDGE	SAN BERNARDINO	S	1934	PROJ.REVW.	FHWA000302A	03/01/02	2S2	AC
124741	36-019674	1495 MT VIEW	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1931	PROJ.REVW.	HUD000605AU	06/15/00	6Y	
124740	36-019673	1573 MT VIEW	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1946	PROJ.REVW.	HUD000605AT	06/15/00	6Y	
124739	36-019672	1572 MT VIEW AVE	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1941	PROJ.REVW.	HUD000605AS	06/15/00	6Y	
166123		879 MT. VIEW		SAN BERNARDINO	P	1922	PROJ.REVW.	HUD070614J	06/20/07	6Y	
166122		889 MT. VIEW		SAN BERNARDINO	P	1922	PROJ.REVW.	HUD070614K	06/20/07	6Y	
103631	36-017675	MYRTLE AVE	PATTON STATE HOSPITAL/C-D BUILDING	SAN BERNARDINO	S	1928	HIST.RES.	DOE-36-96-0001-0010	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
133065		1341 N ACACIA AVE		SAN BERNARDINO	P	1940	HIST.RES.	DOE-36-00-0546-0000	08/07/00	6Y	
							PROJ.REVW.	HUD000703M	08/07/00	6Y	
109866	36-017733	351 N ARROWHEAD AVE	SAN BERNARDINO COUNTY COURTHOUSE	SAN BERNARDINO	C	1927	HIST.RES.	NPS-97001632-9999	01/12/98	1S	AC
							NAT.REG.	36-0040	08/07/97	3S	AC
							PROJ.REVW.	FEMA960322A	08/19/96	2S2	
154515		880 N ARROWHEAD AVE		SAN BERNARDINO	P	1906	PROJ.REVW.	HUD050527K	06/17/05	6Y	
161528		1305 N ARROWHEAD AVE		SAN BERNARDINO	P	1928	PROJ.REVW.	HUD060324N	04/03/06	6Y	
139499		1349 N ARROWHEAD AVE		SAN BERNARDINO	P		HIST.RES.	DOE-36-03-0020-0000	05/02/03	6Y	
							PROJ.REVW.	HUD030414L	05/02/03	6Y	
144852		1365 N ARROWHEAD AVE		SAN BERNARDINO	P	1936	HIST.RES.	DOE-36-03-0038-0000	11/20/03	6Y	
							PROJ.REVW.	HUD031120C	11/20/03	6Y	
096309	36-017734	2503 N BERKELEY AVE		SAN BERNARDINO	P	1927	PROJ.REVW.	HUD950427B	06/20/95	6Y	
091079	36-017735	796 N D ST	HERITAGE HOUSE (JUDGE GEORGE E. OT	SAN BERNARDINO	P	1891	HIST.RES.	SPHI-SBR-102	05/31/84	7L	
152510		883 N D ST		SAN BERNARDINO	P	1924	HIST.RES.	DOE-36-04-0027-0000	12/08/04	6Y	
							PROJ.REVW.	FCC041007A	12/08/04	6Y	
144722		1521 N D ST		SAN BERNARDINO	P	1938	HIST.RES.	DOE-36-03-0037-0000	10/16/03	6Y	
							PROJ.REVW.	HUD030924G	10/16/03	6Y	
165970		2120 N D ST		SAN BERNARDINO	P	1923	PROJ.REVW.	HUD070426C	04/27/07	6Y	
091766	36-017736	2808 N D ST		SAN BERNARDINO	P	1940	PROJ.REVW.	HUD940916F	10/12/94	6Y	
091071	~~36-017737~~ 36-004288	320 N E ST	THE ANDRESON BUILDING	SAN BERNARDINO	P		HIST.RES.	SPHI-SBR-090	03/31/80	7L	
082003	~~36-017738~~ 36-007842	497 N E ST	FRANK C. PLATT / WEST COAST THEATR	SAN BERNARDINO	M	1925	HIST.SURV.	2401-0006-0000	05/25/93	7R	
							NAT.REG.	36-0021	05/25/93	7J	
062746	~~36-017739~~ 008070	524 N E ST demo	THE CALIFORNIA HOTEL	SAN BERNARDINO	P	1926	HIST.SURV.	2401-0005-0000	01/01/85	3S	
							HIST.SURV.	2401-0005-0000		1S	
155381		646 N E ST		SAN BERNARDINO	P	1945	PROJ.REVW.	HUD050907A	09/28/05	6Y	
073023	36-017740	736 N E ST	FIRST CHURCH OF CHRIST, SCNTS	SAN BERNARDINO	P	1917	NAT.REG.	36-0003	05/26/89	7J	
103216	36-017741	1101 N E ST		SAN BERNARDINO	P	1923	HIST.RES.	DOE-36-96-0016-0000	09/11/96	2S2	C
							PROJ.REVW.	HUD960423W	09/11/96	2S2	C
103215	36-017742	1109 N E ST		SAN BERNARDINO	P	1923	HIST.RES.	DOE-36-96-0015-0000	09/11/96	2S2	C
							PROJ.REVW.	HUD960423W	09/11/96	2S2	C
167849		1550 N E ST		SAN BERNARDINO	P	1930	PROJ.REVW.	HUD070904L	09/17/07	6Y	
163355		1660 N E ST		SAN BERNARDINO	P	1934	PROJ.REVW.	HUD061019G	10/19/06	6Y	
090539	36-017743	1749 N E ST		SAN BERNARDINO	P	1925	PROJ.REVW.	HUD940805Z	08/09/94	6Y	

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156557		3511 N E ST		SAN BERNARDINO	P	1922	PROJ.REVW.	HUD051019E	11/04/05	6Y	
091083	36-017744	531 N F ST	ST BERNARDINE OF SIENA CATHOLIC CH	SAN BERNARDINO	P	1910	HIST.RES.	SPHI-SBR-106	07/02/85	7L	
153312		1156 N F ST	STEPHENS & BOBBITT MORTUARY / VICT	SAN BERNARDINO	P	1928	HIST.RES.	CR	08/05/05	1CS	AC
							CAL.REG.	36-0085	05/02/05	3CS	AC
153650		3088 N F ST		SAN BERNARDINO	P	1924	PROJ.REVW.	HUD050407B	05/04/05	6Y	
087639	36-017745	958 N G ST		SAN BERNARDINO	P	1915	PROJ.REVW.	HUD940110C	02/23/94	6Y	
169780		2135 N G ST		SAN BERNARDINO	P	1920	PROJ.REVW.	HUD071228B	01/08/08	6Y	
095699	36-017746	2816 N GARDENA ST		SAN BERNARDINO	P	1944	PROJ.REVW.	HUD950315C	05/01/95	6Y	
101392	36-017747	839 N GARNER AVE		SAN BERNARDINO	P	1918	PROJ.REVW.	HUD960222G	03/26/96	6Y	
111201	36-017748	N H ST		SAN BERNARDINO	P	1958	HIST.RES.	DOE-36-92-0188-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111185	36-017749	190 N H ST demo		SAN BERNARDINO	P	1964	HIST.RES.	DOE-36-92-0182-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111186	36-017750	342 N H ST		SAN BERNARDINO	P	1983	HIST.RES.	DOE-36-92-0183-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111187	36-017751	390 N H ST		SAN BERNARDINO	P	1979	HIST.RES.	DOE-36-92-0184-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110928	36-017752	462 N H ST		SAN BERNARDINO	P		HIST.RES.	DOE-36-92-0012-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110929	36-017753	468 N H ST		SAN BERNARDINO	P	1915	HIST.RES.	DOE-36-92-0013-0000	08/12/92	6Y	
							PROJ.REVW.	FWHA920619A	08/12/92	6Y	
111188	36-017754	606 N H ST		SAN BERNARDINO	P	1962	HIST.RES.	DOE-36-92-0185-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111189	36-017755	800 N H ST		SAN BERNARDINO	P	1910	HIST.RES.	DOE-36-92-0186-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111190	36-017756	830 N H ST		SAN BERNARDINO	P	1950	HIST.RES.	DOE-36-92-0187-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110953	36-017757	850 N H ST		SAN BERNARDINO	P	1920	HIST.RES.	DOE-36-92-0034-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110955	36-017758	860 N H ST		SAN BERNARDINO	P	1918	HIST.RES.	DOE-36-92-0035-0000	08/12/95	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111202	36-017759	868 N H ST		SAN BERNARDINO	P	1926	HIST.RES.	DOE-36-92-0189-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110956	36-017760	876 N H ST		SAN BERNARDINO	P	1918	HIST.RES.	DOE-36-92-0036-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111203	36-017761	884 N H ST		SAN BERNARDINO	P	1918	HIST.RES.	DOE-36-92-0190-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110957	36-017762	888 N H ST		SAN BERNARDINO	P	1919	HIST.RES.	DOE-36-92-0037-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111204	36-017763	896 N H ST		SAN BERNARDINO	P	1940	HIST.RES.	DOE-36-92-0191-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111205	36-017764	902 N H ST		SAN BERNARDINO	P	1915	HIST.RES.	DOE-36-92-0192-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110958	36-017765	914 N H ST		SAN BERNARDINO	P	1912	HIST.RES.	DOE-36-92-0038-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110959	36-017766	924 N H ST		SAN BERNARDINO	P	1905	HIST.RES.	DOE-36-92-0039-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110969	36-017767	1064 N H ST		SAN BERNARDINO	P	1915	HIST.RES.	DOE-36-92-0049-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111206	36-017768	1072 N H ST		SAN BERNARDINO	P	1915	HIST.RES.	DOE-36-92-0193-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110970	36-017769	1076 N H ST		SAN BERNARDINO	P	1922	HIST.RES.	DOE-36-92-0050-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111207	36-017770	1080 N H ST		SAN BERNARDINO	P	1915	HIST.RES.	DOE-36-92-0194-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110971	36-017771	1086 N H ST		SAN BERNARDINO	P	1915	HIST.RES.	DOE-36-92-0051-0000	08/12/92	6Y	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111208	36-017772	1090 N H ST		SAN BERNARDINO	P	1915	HIST.RES.	DOE-36-92-0195-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110975	36-017773	1108 N H ST		SAN BERNARDINO	P	1917	HIST.RES.	DOE-36-92-0055-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110976	36-017774	1116 N H ST		SAN BERNARDINO	P	1917	HIST.RES.	DOE-36-92-0056-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111209	36-017775	1120 N H ST		SAN BERNARDINO	P	1940	HIST.RES.	DOE-36-92-0196-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111210	36-017776	1158 N H ST		SAN BERNARDINO	P	1986	HIST.RES.	DOE-36-92-0197-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111211	36-017777	1344 N H ST		SAN BERNARDINO	P	1964	HIST.RES.	DOE-36-92-0198-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111212	36-017778	1373 N H ST		SAN BERNARDINO	P	1964	HIST.RES.	DOE-36-92-0199-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111213	36-017779	1400 N H ST		SAN BERNARDINO	P	1959	HIST.RES.	DOE-36-92-0200-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111214	36-017780	1445 N H ST		SAN BERNARDINO	P	1986	HIST.RES.	DOE-36-92-0201-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110999	36-017782	1585 N H ST		SAN BERNARDINO	P	1924	HIST.RES.	DOE-36-92-0074-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111215	36-017781	1598 N H ST		SAN BERNARDINO	P	1967	HIST.RES.	DOE-36-92-0202-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111033	36-017783	101 N I ST	I STREET SCHOOL	SAN BERNARDINO	C	1915	HIST.RES.	DOE-36-92-0106-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
077452	36-017784	133 N I ST	TOPRICIAN APARTMENTS	SAN BERNARDINO	P		HIST.RES.	DOE-36-92-0003-0000	08/10/92	2S2	C
							PROJ.REVW.	FHWA920619A	08/10/92	2S2	C
111032	36-017785	155 N I ST	JAMES McNAIR RESIDENCE	SAN BERNARDINO	P	1911	HIST.RES.	DOE-36-92-0105-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
077449	36-017786	165 N I ST	DAVID CALDWELL RESIDENCE	SAN BERNARDINO	P		HIST.RES.	DOE-36-92-0002-0000	08/10/92	6Y	
							PROJ.REVW.	FHWA920619A	08/10/92	6Y	
111230	36-017787	219 N I ST		SAN BERNARDINO	P	1925	HIST.RES.	DOE-36-92-0215-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111031	36-017788	300 N I ST	CUDAHY PACKING COMPANY	SAN BERNARDINO	P	1898	HIST.RES.	DOE-36-92-0104-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111231	36-017789	724 N I ST		SAN BERNARDINO	P	1910	HIST.RES.	DOE-36-92-0216-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111232	36-017790	776 N I ST		SAN BERNARDINO	P	1920	HIST.RES.	DOE-36-92-0217-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111233	36-017791	1448 N I ST		SAN BERNARDINO	P	1958	HIST.RES.	DOE-36-92-0218-000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111234	36-017792	1502 N I ST		SAN BERNARDINO	P	1970	HIST.RES.	DOE-36-92-0219-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
174989		172 N J ST		SAN BERNARDINO	P	1903	PROJ.REVW.	HUD090316B	04/07/09	6Y	
111248	36-017793	383 N J ST		SAN BERNARDINO	P	1973	HIST.RES.	DOE-36-92-0232-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111249	36-017794	401 N J ST		SAN BERNARDINO	P	1956	HIST.RES.	DOE-36-92-0233-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
173108		1345 N K ST		SAN BERNARDINO	P	1924	PROJ.REVW.	HUD080916A	09/19/08	6Y	
163414		3519 N MAYFIELD AVE		SAN BERNARDINO	P	1951	PROJ.REVW.	HUD061025A	10/25/06	6Y	
099966	36-017795	1077 N MEDICAL CENTER DR		SAN BERNARDINO	P	1940	PROJ.REVW.	HUD951221A	01/10/96	6Y	
154769		224 N MOUNT VERNON AVE		SAN BERNARDINO	P	1915	PROJ.REVW.	FHWA000302A	03/01/02	6Y	
154768		232 N MOUNT VERNON AVE		SAN BERNARDINO	P	1915	PROJ.REVW.	FHWA000302A	03/01/02	6Y	
154767		240 N MOUNT VERNON AVE		SAN BERNARDINO	P	1915	PROJ.REVW.	FHWA000302A	03/01/02	2S2	C
154766		248 N MOUNT VERNON AVE		SAN BERNARDINO	P	1915	PROJ.REVW.	FHWA000302A	03/01/02	6Y	
091070	~~36-017796~~	839 N MOUNT VERNON AVE	HOME OF NEIGHBORLY SERVICE	SAN BERNARDINO	U	1920	PROJ.REVW.	HUD940520E	09/12/94	6Y	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
							HIST.RES.	SPHI-SBR-088	10/29/76	7L	
139498		1301 N MOUNTAIN AVE		SAN BERNARDINO	P		HIST.RES.	DOE-36-02-0019-0000	05/02/03	6Y	
							PROJ.REVW.	HUD030414K	05/02/03	6Y	
091081	36-017732	N MOUNTAIN VIEW AVE	WEST TWIN CREEK WATER CO. SYSTEM F	SAN BERNARDINO	U	1854	HIST.RES.	SPHI-SBR-104	11/16/84	7L	
128606		340 N MOUNTAIN VIEW AVE	FORMER WELFARE BUILDING / DEPARTME	SAN BERNARDINO	C	1937	HIST.RES.	NPS-97001632-0001	01/12/98	1D	AC
128607		364 N MOUNTAIN VIEW AVE	FORMER COUNTY LIBRARY/LAW OFFICES	SAN BERNARDINO	C	1940	HIST.RES.	NPS-97001632-0002	01/12/98	1D	AC
091088	36-017797	527 N MOUNTAIN VIEW AVE	COX-BRADLEY HOME	SAN BERNARDINO	P		HIST.RES.	SPHI-SBR-112	07/01/87	7L	
133073		754 N MOUNTAIN VIEW AVE		SAN BERNARDINO	P	1912	HIST.RES.	DOE-36-00-0552-0000	08/07/00	6Y	
							PROJ.REVW.	HUD000703S	08/07/00	6Y	
100447	36-017798	783 N MOUNTAIN VIEW AVE		SAN BERNARDINO	P	1880	HIST.RES.	DOE-36-96-0013-0000	11/12/96	2S2	C
							PROJ.REVW.	HUD951229B	11/12/96	2S2	C
							HIST.RES.	DOE-36-96-0012-0000	02/02/96	6Y	
							PROJ.REVW.	HUD951229B	02/02/96	6Y	
144721		1322 N MOUNTAIN VIEW AVE		SAN BERNARDINO	P	1923	HIST.RES.	DOE-36-03-0036-0000	10/16/03	6Y	
							PROJ.REVW.	HUD030924E	10/16/03	6Y	
129458		1441 N MOUNTAIN VIEW AVE		SAN BERNARDINO	P		HIST.RES.	DOE-36-01-0014-0000	11/29/01	6Y	
							PROJ.REVW.	HUD011116D	11/29/01	6Y	
129457		1495 N MOUNTAIN VIEW AVE		SAN BERNARDINO	P		HIST.RES.	DOE-36-01-0013-0000	11/29/01	6Y	
							PROJ.REVW.	HUD011116C	11/29/01	6Y	
175042		3990 N MOUNTAIN VIEW AVE		SAN BERNARDINO	P	1949	PROJ.REVW.	HUD090219A	03/18/09	6Y	
153724		4362 N MOUNTAIN VIEW AVE		SAN BERNARDINO	P	1951	PROJ.REVW.	HUD050425K	04/26/05	6Y	
175130		3985 N PALM DR		SAN BERNARDINO	P	1955	PROJ.REVW.	HUD090128I	02/26/09	6Y	
091793	36-017799	1335 N PERRIS ST		SAN BERNARDINO	P	1920	PROJ.REVW.	HUD940825A	10/13/94	6Y	
129459		1501 N PERSHING AVE		SAN BERNARDINO	P		HIST.RES.	DOE-36-01-0015-0000	11/29/01	6Y	
							PROJ.REVW.	HUD011116E	11/29/01	6Y	
124719	36-019654	1563 N PERSHING AVE		SAN BERNARDINO	M	1937	PROJ.REVW.	HUD000605AB	06/15/00	6Y	
096295	36-017812	1789 N PERSHING AVE		SAN BERNARDINO	P	1924	PROJ.REVW.	HUD950420D	06/20/95	6Y	
124743	36-019676	1894 N PERSHING AVE		SAN BERNARDINO	M	1922	PROJ.REVW.	HUD000605AW	06/15/00	6Y	
124744	36-019677	1898 N PERSHING AVE		SAN BERNARDINO	M	1930	PROJ.REVW.	HUD000605AW	06/15/00	6Y	
154513		3364 N PERSHING AVE		SAN BERNARDINO	P	1929	PROJ.REVW.	HUD050527J	06/17/05	6Y	
091795	36-017800	1267 N SEPULVEDA AVE		SAN BERNARDINO	P	1924	PROJ.REVW.	HUD940825Z	10/13/94	6Y	
133070		1023 N SIERRA WY		SAN BERNARDINO	P	1951	HIST.RES.	DOE-36-00-0549-0000	08/07/00	6Y	
							PROJ.REVW.	HUD000703P	08/07/00	6Y	
163371		1068 N SIERRA WY		SAN BERNARDINO	P	1915	PROJ.REVW.	HUD060906B	09/06/06	6Y	
168047		1218 N SIERRA WY		SAN BERNARDINO	P	1936	PROJ.REVW.	HUD070912A	09/20/07	6Y	
084532	36-017801	1238 N SIERRA WY		SAN BERNARDINO	P	1925	PROJ.REVW.	HUD930902A	10/07/93	6Y	
133075		1356 N SIERRA WY		SAN BERNARDINO	P	1949	HIST.RES.	DOE-36-00-0554-0000	08/07/00	6Y	
							PROJ.REVW.	HUD000703U	08/07/00	6Y	
169976		1602 N SIERRA WY		SAN BERNARDINO	P	1952	PROJ.REVW.	HUD080207D	02/13/08	6Y	
099927	36-017802	2016 N SIERRA WY		SAN BERNARDINO	P	1925	PROJ.REVW.	HUD951214A	01/04/96	6Y	
129512		2163 N SIERRA WY	VICKY'S ALTERATIONS	SAN BERNARDINO	P	1945	HIST.RES.	DOE-36-01-0017-0000	12/27/01	6Y	
							PROJ.REVW.	FCC011015GG	12/27/01	6Y	
102797	36-017803	3145 N SIERRA WY		SAN BERNARDINO	P	1940	PROJ.REVW.	HUD960611B	08/05/96	6Y	
139067		1237 N STODDARD AVE		SAN BERNARDINO	P	1907	HIST.RES.	DOE-36-03-0018-0000	04/10/03	6Y	
							PROJ.REVW.	HUD030401W	04/10/03	6Y	
153973		1247 N STODDARD AVE		SAN BERNARDINO	P	1905	PROJ.REVW.	HUD050510C	05/19/05	6Y	
118828	36-018780	OLIVE AVE	PATTON STATE HOSPITAL/T BUILDING	SAN BERNARDINO	S	1931	HIST.RES.	DOE-36-96-0001-0032	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
118829	36-018781	OLIVE AVE	PATTON STATE HOSPITAL/G BUILDING	SAN BERNARDINO	S	1938	HIST.RES.	DOE-36-96-0001-0033	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
118833	36-018785	OLIVE AVE	PATTON STATE HOSPITAL/GARAGE FOR R	SAN BERNARDINO	S	1915	HIST.RES.	DOE-36-96-0001-0037	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
154607		7160 OSBUN RD		SAN BERNARDINO	P	1946	PROJ.REVW.	HUD050603B	06/20/05	6Y	
103869	36-017804	PATTON AVE	PATTON STATE HOSPITAL/CANTEEN	SAN BERNARDINO	S	1912	HIST.RES.	DOE-36-96-0001-0017	08/29/96	2D2	AC

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							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103914	36-017808	PATTON AVE	PATTON STATE HOSPITAL/PROTECTIVE S	SAN BERNARDINO	S	1913	HIST.RES.	DOE-36-96-0001-0021	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103918	36-017806	PATTON AVE	PATTON STATE HOSPITAL / RESIDENCE	SAN BERNARDINO	S	1923	HIST.RES.	DOE-36-96-0001-0024	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103920	36-017805	PATTON AVE	PATTON STATE HOSPITAL/V BUILDING/H	SAN BERNARDINO	S	1928	HIST.RES.	DOE-36-96-0001-0025	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103917	36-017807	PATTON AVE	PATTON STATE HOSPITAL / RESIDENCE	SAN BERNARDINO	S	1919	HIST.RES.	DOE-36-96-0001-0023	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103915	36-017810	PATTON AVE	PATTON STATE HOSPITAL/RESIDENCE 3	SAN BERNARDINO	S	1912	HIST.RES.	DOE-36-96-0001-0022	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103636	36-017809	PATTON AVE	PATTON STATE HOSPITAL/GENERAL SERV	SAN BERNARDINO	S	1912	HIST.RES.	DOE-36-96-0001-0015	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
070150	36-017811	389 PEAR ST		SAN BERNARDINO	U	1908	PROJ.REVW.	HUD901210A	04/11/91	6Y	
124742	36-019675	1385 PERRIS ST N	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1931	PROJ.REVW.	HUD000605AV	06/15/00	6Y	
097616	36-017813	604 PIONEER ST	MARSHALL RESIDENCE	SAN BERNARDINO	P	1942	HIST.RES.	DOE-36-95-0004-0000	10/17/95	6Y	
							PROJ.REVW.	FHWA950905A	10/17/95	6Y	
103619	36-017816	PUMALO AVE	PATTON STATE HOSPITAL/HOUSEKEEPING	SAN BERNARDINO	S	1918	HIST.RES.	DOE-36-96-0001-0003	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103624	36-017815	PUMALO AVE	PATTON STATE HOSPITAL/PLANT OPERAT	SAN BERNARDINO	S	1918	HIST.RES.	DOE-36-96-0001-0004	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
103607	36-017814	PUMALO AVE	PATTON STATE HOSPITAL / LAUNDRY /	SAN BERNARDINO	S	1926	HIST.RES.	DOE-36-96-0001-0002	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
118827	36-018779	PUMALO AVE	PATTON STATE HOSPITAL/PLANT OPERAT	SAN BERNARDINO	S		HIST.RES.	DOE-36-96-0001-0031	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
118826	36-018778	PUMALO AVE	PATTON STATE HOSPITAL / FOOD WAREH	SAN BERNARDINO	S	1930	HIST.RES.	DOE-36-96-0001-0030	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
118831	36-018783	PUMALO AVE	PATTON STATE HOSPITAL/J BUILDING	SAN BERNARDINO	S	1929	HIST.RES.	DOE-36-96-0001-0035	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
118832	36-018784	PUMALO AVE	PATTON STATE HOSPITAL/POOL ROOM	SAN BERNARDINO	S	1923	HIST.RES.	DOE-36-96-0001-0036	08/29/96	2D2	AC
							PROJ.REVW.	HUD960423X	08/29/96	2D2	AC
066010	36-017817	128 S BUENA VISTA ST		SAN BERNARDINO	U		PROJ.REVW.	HUD890713B	08/09/89	6Y	
153987		811 S BUNKER HILL DR		SAN BERNARDINO	P	1954	PROJ.REVW.	HUD050510E	05/19/05	6Y	
090997	36-017818	689 S E ST	NATIONAL ORANGE SHOW	SAN BERNARDINO	P	1922	HIST.RES.	SPHI-SBR-007	06/22/72	7L	
111180	36-017819	1280 S E ST		SAN BERNARDINO	P	1970	HIST.RES.	DOE-36-92-0177-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111181	36-017820	1286 S E ST		SAN BERNARDINO	P	1983	HIST.RES.	DOE-36-92-0178-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111217	36-017821	580 S H ST		SAN BERNARDINO	P	1970	HIST.RES.	DOE-36-92-0203-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110918	36-017822	604 S H ST		SAN BERNARDINO	P	1910	HIST.RES.	DOE-36-92-0006-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111218	36-017823	630 S H ST		SAN BERNARDINO	P	1940	HIST.RES.	DOE-36-92-0204-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111219	36-017824	638 S H ST		SAN BERNARDINO	P	1945	HIST.RES.	DOE-36-92-0205-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110917	36-017825	646 S H ST		SAN BERNARDINO	P	1923	HIST.RES.	DOE-36-92-0005-0000	08/19/92	6Y	
							PROJ.REVW.	FHWA920619A	08/18/92	6Y	
111221	36-017826	654 S H ST		SAN BERNARDINO	P	1924	HIST.RES.	DOE-36-92-0206-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111222	36-017827	708 S H ST		SAN BERNARDINO	P	1912	HIST.RES.	DOE-36-92-0207-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110916	36-017828	728 S H ST		SAN BERNARDINO	P	1915	HIST.RES.	DOE-36-92-0004-0000	08/10/92	6Y	
							PROJ.REVW.	FHWA920619A	08/10/92	6Y	

CC South

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
111223	36-017829	740 S H ST CC South		SAN BERNARDINO	P	1979	HIST.RES.	DOE-36-92-0208-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111034	36-017830	101 S I ST		SAN BERNARDINO	P	1905	HIST.RES.	DOE-36-92-0107-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111235	36-017831	111 S I ST		SAN BERNARDINO	P	1915	HIST.RES.	DOE-36-92-0220-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111237	36-017832	131 S I ST		SAN BERNARDINO	P	1915	HIST.RES.	DOE-36-92-0221-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111238	36-017833	366 S I ST		SAN BERNARDINO	P	1959	HIST.RES.	DOE-36-92-0222-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111239	36-017834	383 S I ST		SAN BERNARDINO	P		HIST.RES.	DOE-36-92-0223-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111240	36-017835	401 S I ST		SAN BERNARDINO	P		HIST.RES.	DOE-36-92-0224-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111241	36-017836	404 S I ST		SAN BERNARDINO	P	1973	HIST.RES.	DOE-36-92-0225-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111037	36-017837	565 S I ST		SAN BERNARDINO	P	1926	HIST.RES.	DOE-36-92-0110-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111242	36-017838	571 S I ST		SAN BERNARDINO	P	1944	HIST.RES.	DOE-36-92-0226-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111038	36-017839	579 S I ST		SAN BERNARDINO	P	1936	HIST.RES.	DOE-36-92-0111-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111243	36-017840	587 S I ST		SAN BERNARDINO	P	1920	HIST.RES.	DOE-36-92-0227-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111244	36-017841	599 S I ST		SAN BERNARDINO	P	1946	HIST.RES.	DOE-36-92-0228-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111245	36-017842	685 S I ST		SAN BERNARDINO	P	1961	HIST.RES.	DOE-36-92-0229-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
099108	36-017843	863 S J ST		SAN BERNARDINO	P	1945	PROJ.REVW.	HUD951127E	01/03/96	6Y	
084792	36-017844	246 S K ST		SAN BERNARDINO	P		PROJ.REVW.	HUD930920N	11/22/93	6Y	
101441	36-017845	981 S SCENIC DR		SAN BERNARDINO	P	1945	PROJ.REVW.	HUD960226Z	03/29/96	6Y	
170429		682 S VALLEY VIEW AVE		SAN BERNARDINO	P	1950	PROJ.REVW.	HUD080317Q	03/19/08	6Y	
163244		108 S WATERMAN AVE		SAN BERNARDINO	P	1929	PROJ.REVW.	HUD060926A	09/26/06	6Y	
111040	36-017846	915 SCENIC DR		SAN BERNARDINO	P	1942	HIST.RES.	DOE-36-92-0113-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111041	36-017847	923 SCENIC DR		SAN BERNARDINO	P	1942	HIST.RES.	DOE-36-92-0114-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111042	36-017848	931 SCENIC DR		SAN BERNARDINO	P	1942	HIST.RES.	DOE-36-92-0115-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111043	36-017849	939 SCENIC DR		SAN BERNARDINO	P	1942	HIST.RES.	DOE-36-92-0116-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111044	36-017850	945 SCENIC DR		SAN BERNARDINO	P	1942	HIST.RES.	DOE-36-92-0117-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111045	36-017851	953 SCENIC DR		SAN BERNARDINO	P	1942	HIST.RES.	DOE-36-92-0118-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111046	36-017852	959 SCENIC DR		SAN BERNARDINO	P	1942	HIST.RES.	DOE-36-92-0119-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
154358		411 SEPULVEDA AVE CC East SubDiv 1906		SAN BERNARDINO	P	1906	PROJ.REVW.	HUD050602A	06/03/05	6Y	
133047		4300 SEPULVEDA AVE		SAN BERNARDINO	P	1950	HIST.RES.	DOE-36-02-0019-0000	08/20/02	6Y	
							PROJ.REVW.	HUD020813I	08/20/02	6Y	
124755	36-019688	4531 SEPULVEDA AVE	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1924	PROJ.REVW.	HUD000605BH	06/15/00	6Y	
124729	36-019663	1450 SHERIDAN RD	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1949	PROJ.REVW.	HUD000605AJ	06/15/00	6Y	
124728	36-019662	1462 SHERIDAN RD	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1949	PROJ.REVW.	HUD000605AI	06/15/00	6Y	
124727	36-019661	1466 SHERIDAN RD	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1949	PROJ.REVW.	HUD000605AH	06/15/00	6Y	
124748	36-019681	1528 SIERRA WAY N	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1924	PROJ.REVW.	HUD000605BA	06/15/00	6Y	
124715	36-019650	1554 SIERRA WAY N	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1925	PROJ.REVW.	HUD000605X	06/15/00	6Y	

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124716	36-019651	1565 SIERRA WAY N	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1928	PROJ.REVW.	HUD000605Y	06/15/00	6Y	
013374 106538	36-~~017859~~	~~3822~~ SIERRA WY 3800	SAN BERNARDINO RANGER UNIT HEADQUA	SAN BERNARDINO			ST.AG.5024	ST.AG.-3540-0241	01/29/97	4CM	AD
066943	36-017854	929 SPERRY DR	STRUCTURE REHABILITATION	SAN BERNARDINO	U		PROJ.REVW.	HUD891005B	11/08/89	6Y	
111269	36-017855	840 SPRUCE ST		SAN BERNARDINO	P	1904	HIST.RES.	DOE-36-92-0252-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110931	36-017856	844 SPRUCE ST		SAN BERNARDINO	P	1901	HIST.RES.	DOE-36-92-0015-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110932	36-017857	845 SPRUCE ST		SAN BERNARDINO	P	1904	HIST.RES.	DOE-36-92-0016-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110933	36-017858	847 SPRUCE ST		SAN BERNARDINO	P	1905	HIST.RES.	DOE-36-92-0017-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111270	36-017859	855 SPRUCE ST		SAN BERNARDINO	P	1906	HIST.RES.	DOE-36-92-0253-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110930	36-017860	858 SPRUCE ST		SAN BERNARDINO	P	1907	HIST.RES.	DOE-36-92-0014-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111025	36-017861	915 SPRUCE ST		SAN BERNARDINO	P	1890	HIST.RES.	DOE-36-92-0099-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111026	36-017862	916 SPRUCE ST	YBARRA'S MARKET	SAN BERNARDINO	P	1910	HIST.RES.	DOE-36-92-0100-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
156478		7734 STERLING AVE		SAN BERNARDINO	P	1944	PROJ.REVW.	HUD051003E	11/02/05	6Y	
172491		7041 TIPPECANOE AVE		SAN BERNARDINO	P	1956	PROJ.REVW.	HUD080625C	07/17/08	6Y	
080400	36-017863	6970 TIPPECANOE ST		SAN BERNARDINO	U	1940	PROJ.REVW.	HUD930203P	02/22/93	6Y	
169037		7204 TIPPERCANOE AVE		SAN BERNARDINO	P	1940	PROJ.REVW.	HUD071115B	11/21/07	6Y	
110994	36-017864	820 TRENTON ST		SAN BERNARDINO	P	1924	HIST.RES.	DOE-36-92-0069-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110995	36-017865	821 TRENTON ST		SAN BERNARDINO	P	1930	HIST.RES.	DOE-36-92-0070-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110993	36-017866	830 TRENTON ST		SAN BERNARDINO	P	1935	HIST.RES.	DOE-36-92-0068-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110996	36-017867	831 TRENTON ST		SAN BERNARDINO	P	1936	HIST.RES.	DOE-36-92-0071-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110997	36-017868	841 TRENTON ST		SAN BERNARDINO	P	1939	HIST.RES.	DOE-36-92-0072-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110991	36-017869	842 TRENTON ST		SAN BERNARDINO			HIST.RES.	DOE-36-92-0067-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110990	36-017870	850 TRENTON ST		SAN BERNARDINO	P	1938	HIST.RES.	DOE-36-92-0066-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110998	36-017871	851 TRENTON ST		SAN BERNARDINO	P	1939	HIST.RES.	DOE-36-92-0073-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111274	36-017872	860 TRENTON ST		SAN BERNARDINO	P	1935	HIST.RES.	DOE-36-92-0257-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111275	36-017873	861 TRENTON ST		SAN BERNARDINO	P	1943	HIST.RES.	DOE-36-92-0258-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111276	36-017874	870 TRENTON ST		SAN BERNARDINO	P	1935	HIST.RES.	DOE-36-92-0259-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
173036		1364 TRENTON ST		SAN BERNARDINO	P	1946	PROJ.REVW.	HUD080718M	08/11/08	6Y	
111277	36-017876	2059 TURRILL AVE		SAN BERNARDINO	P	1933	HIST.RES.	DOE-36-92-0260-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111278	36-017875	2059 TURRILL AVE		SAN BERNARDINO	P	1933	HIST.RES.	DOE-36-92-0261-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111279	36-017877	845 VICTORIA ST		SAN BERNARDINO	P	1905	HIST.RES.	DOE-36-92-0262-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111280	36-017878	851 VICTORIA ST		SAN BERNARDINO	P	1958	HIST.RES.	DOE-36-92-0263-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
124752	36-019685	242 VIRGINIA CR	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1925	PROJ.REVW.	HUD000605BE	06/15/00	6Y	
111000	36-017879	781 VIRGINIA ST		SAN BERNARDINO	P	1945	HIST.RES.	DOE-36-92-0075-0000	08/12/92	6Y	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111002	36-017880	789 VIRGINIA ST		SAN BERNARDINO	P	1945	HIST.RES.	DOE-36-92-0076-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111003	36-017881	797 VIRGINIA ST		SAN BERNARDINO	P	1945	HIST.RES.	DOE-36-92-0077-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111282	36-017882	807 VIRGINIA ST		SAN BERNARDINO	P	1940	HIST.RES.	DOE-36-92-0265-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111283	36-017883	808 VIRGINIA ST		SAN BERNARDINO	P	1942	HIST.RES.	DOE-36-92-0266-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110987	36-017884	814 VIRGINIA ST		SAN BERNARDINO	P	1939	HIST.RES.	DOE-36-92-0063-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110984	36-017885	815 VIRGINIA ST		SAN BERNARDINO	P	1942	HIST.RES.	DOE-36-92-0060-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111284	36-017886	823 VIRGINIA ST		SAN BERNARDINO	P	1938	HIST.RES.	DOE-36-92-0267-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111285	36-017887	824 VIRGINIA ST		SAN BERNARDINO	P	1941	HIST.RES.	DOE-36-92-0268-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111286	36-017888	831 VIRGINIA ST		SAN BERNARDINO			HIST.RES.	DOE-36-92-0269-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111287	36-017889	832 VIRGINIA ST		SAN BERNARDINO	P	1939	HIST.RES.	DOE-36-92-0270-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111288	36-017890	839 VIRGINIA ST		SAN BERNARDINO	P	1940	HIST.RES.	DOE-36-92-0271-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110986	36-017891	840 VIRGINIA ST		SAN BERNARDINO	P	1943	HIST.RES.	DOE-36-92-0062-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110985	36-017892	847 VIRGINIA ST		SAN BERNARDINO	P	1940	HIST.RES.	DOE-36-92-0061-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111289	36-017893	848 VIRGINIA ST		SAN BERNARDINO	P	1942	HIST.RES.	DOE-36-92-0272-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
092546	36-017894	688 W 10TH ST		SAN BERNARDINO		1938	PROJ.REVW.	HUD940906H	11/01/94	6Y	
110966	36-017895	832 W 10TH ST		SAN BERNARDINO	P	1890	HIST.RES.	DOE-36-92-0046-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920169A	08/12/92	6Y	
111122	36-017896	833 W 10TH ST		SAN BERNARDINO	P	1985	HIST.RES.	DOE-36-92-0126-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110965	36-017897	840 W 10TH ST		SAN BERNARDINO	P	1890	HIST.RES.	DOE-36-92-0045-0000	08/12/02	6Y	
							PROJ.REVW.	FHWA920169A	08/12/92	6Y	
111123	36-017898	848 W 10TH ST		SAN BERNARDINO	P	1923	HIST.RES.	DOE-36-92-0127-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111124	36-017899	849 W 10TH ST		SAN BERNARDINO	P	1920	HIST.RES.	DOE-36-92-0128-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111125	36-017900	863 W 10TH ST		SAN BERNARDINO	P	1954	HIST.RES.	DOE-36-92-0129-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111126	36-017901	916 W 10TH ST		SAN BERNARDINO	P	1960	HIST.RES.	DOE-36-92-0130-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111127	36-017902	831 W 11TH ST		SAN BERNARDINO	P	1924	HIST.RES.	DOE-36-92-0131-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111128	36-017903	832 W 11TH ST		SAN BERNARDINO	P	1920	HIST.RES.	DOE-36-92-0132-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111129	36-017904	839 W 11TH ST		SAN BERNARDINO	P	1958	HIST.RES.	DOE-36-92-0133-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110974	36-017905	840 W 11TH ST		SAN BERNARDINO	P	1920	HIST.RES.	DOE-36-92-0054-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111130	36-017906	847 W 11TH ST		SAN BERNARDINO	P	1956	HIST.RES.	DOE-36-92-0134-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110973	36-017907	848 W 11TH ST		SAN BERNARDINO	P	1925	HIST.RES.	DOE-36-92-0053-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
111131	36-017908	855 W 11TH ST		SAN BERNARDINO	P	1928	HIST.RES.	DOE-36-92-0135-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110972	36-017909	856 W 11TH ST		SAN BERNARDINO	P	1925	HIST.RES.	DOE-36-92-0052-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111132	36-017910	864 W 11TH ST		SAN BERNARDINO	P	1947	HIST.RES.	DOE-36-92-0136-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
153993		1475 W 11TH ST		SAN BERNARDINO	P	1952	PROJ.REVW.	HUD050510F	05/19/05	6Y	
111133	36-017911	915 W 14TH ST		SAN BERNARDINO	P	1958	HIST.RES.	DOE-36-92-0137-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111134	36-017912	916 W 14TH ST		SAN BERNARDINO	P	1958	HIST.RES.	DOE-36-92-0138-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
088077	36-017913	994 W 14TH ST		SAN BERNARDINO	P	1920	PROJ.REVW.	HUD940203F	03/09/94	6Y	
098497	36-017914	1094 W 14TH ST		SAN BERNARDINO	P	1924	PROJ.REVW.	HUD951002C	11/28/95	6Y	
099921	36-017915	1118 W 14TH ST		SAN BERNARDINO	P	1943	PROJ.REVW.	HUD951130K	01/04/96	6Y	
111135	36-017916	923 W 15TH ST		SAN BERNARDINO	P	1955	HIST.RES.	DOE-36-92-0139-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111136	36-017917	932 W 15TH ST		SAN BERNARDINO	P	1953	HIST.RES.	DOE-36-92-0140-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111137	36-017918	840 W 16TH ST		SAN BERNARDINO	P	1947	HIST.RES.	DOE-36-92-0141-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110988	36-017919	850 W 16TH ST		SAN BERNARDINO	P	1943	HIST.RES.	DOE-36-92-0064-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920169A	08/12/92	6Y	
110989	36-017920	860 W 16TH ST		SAN BERNARDINO	P	1943	HIST.RES.	DOE-36-92-0065-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
090537	36-017921	488 W 17TH ST		SAN BERNARDINO	P	1925	PROJ.REVW.	HUD940805Z	08/09/94	6Y	
111004	36-017922	821 W 17TH ST		SAN BERNARDINO	P	1924	HIST.RES.	DOE-36-92-0078-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111013	36-017923	824 W 17TH ST		SAN BERNARDINO	P	1924	HIST.RES.	DOE-36-92-0087-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111005	36-017924	831 W 17TH ST		SAN BERNARDINO	P	1926	HIST.RES.	DOE-36-92-0079-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111012	36-017925	832 W 17TH ST		SAN BERNARDINO	P	1925	HIST.RES.	DOE-36-92-0086-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111011	36-017926	840 W 17TH ST		SAN BERNARDINO	P	1926	HIST.RES.	DOE-36-92-0085-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111006	36-017927	841 W 17TH ST		SAN BERNARDINO	P	1928	HIST.RES.	DOE-36-92-0080-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111010	36-017928	848 W 17TH ST		SAN BERNARDINO	P	1925	HIST.RES.	DOE-36-92-0084-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111007	36-017929	851 W 17TH ST		SAN BERNARDINO	P	1928	HIST.RES.	DOE-36-92-0081-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111138	36-017930	856 W 17TH ST		SAN BERNARDINO	P	1926	HIST.RES.	DOE-36-92-0142-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111008	36-017931	861 W 17TH ST		SAN BERNARDINO	P	1935	HIST.RES.	DOE-36-92-0082-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111139	36-017932	864 W 17TH ST		SAN BERNARDINO	P	1925	HIST.RES.	DOE-36-92-0143-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111140	36-017933	871 W 17TH ST		SAN BERNARDINO	P	1926	HIST.RES.	DOE-36-92-0144-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111009	36-017934	872 W 17TH ST		SAN BERNARDINO	P	1925	HIST.RES.	DOE-36-92-0083-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111141	36-017935	881 W 17TH ST		SAN BERNARDINO	P	1955	HIST.RES.	DOE-36-92-0145-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
077344	36-017936	770 W 18TH ST		SAN BERNARDINO	U	1926	PROJ.REVW.	HUD920608G	07/01/92	6Y	
111014	36-017937	823 W 18TH ST		SAN BERNARDINO	P	1926	HIST.RES.	DOE-36-92-0088-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
111015	36-017938	831 W 18TH ST		SAN BERNARDINO	P	1925	HIST.RES.	DOE-36-92-0089-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111016	36-017939	839 W 18TH ST		SAN BERNARDINO	P	1922	HIST.RES.	DOE-36-92-0090-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111017	36-017940	847 W 18TH ST		SAN BERNARDINO	P	1926	HIST.RES.	DOE-36-92-0091-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111018	36-017941	855 W 18TH ST		SAN BERNARDINO	P	1925	HIST.RES.	DOE-36-92-0092-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111019	36-017942	863 W 18TH ST		SAN BERNARDINO	P	1922	HIST.RES.	DOE-36-92-0093-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111142	36-017943	871 W 18TH ST		SAN BERNARDINO	P	1938	HIST.RES.	DOE-36-92-0146-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111143	36-017944	1122 W 19TH ST		SAN BERNARDINO	P	1961	HIST.RES.	DOE-36-92-0147-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
150405		440 W 21ST ST		SAN BERNARDINO	P	1920	HIST.RES.	DOE-36-04-0012-0000	11/29/04	6Y	
							PROJ.REVW.	HUD041109E	11/29/04	6Y	
155818		716 W 21ST ST		SAN BERNARDINO	P	1924	PROJ.REVW.	HUD050928C	10/05/05	6Y	
111145	36-017945	1055 W 21ST ST		SAN BERNARDINO	P	1968	HIST.RES.	DOE-36-92-0148-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111146	36-017946	1232 W 21ST ST		SAN BERNARDINO	P	1922	HIST.RES.	DOE-36-92-0149-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111147	36-017947	1240 W 21ST ST		SAN BERNARDINO	P	1925	HIST.RES.	DOE-36-92-0150-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
164026		424 W 23RD ST		SAN BERNARDINO	P	1926	PROJ.REVW.	HUD061120I	11/21/06	6Y	
163129		848 W 23RD ST		SAN BERNARDINO	P	1951	PROJ.REVW.	HUD060908A	09/11/06	6Y	
111150	36-017948	1207 W 23RD ST		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0151-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111151	36-017949	1215 W 23RD ST		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0152-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111153	36-017950	1223 W 23RD ST		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0152-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111154	36-017951	1229 W 23RD ST		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0154-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111155	36-017952	1235 W 23RD ST		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0155-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111156	36-017953	1248 W 23RD ST		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0156-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111158	36-017954	1248 W 23RD ST		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0157-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111160	36-017955	1254 W 23RD ST		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0158-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111161	36-017956	1258 W 23RD ST		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0159-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111162	36-017957	1262 W 23RD ST		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0160-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111163	36-017958	1266 W 23RD ST		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0161-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111164	36-017959	1270 W 23RD ST		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0162-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111165	36-017960	1274 W 23RD ST		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0163-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111166	36-017961	1276 W 23RD ST		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0164-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111167	36-017962	1282 W 23RD ST		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0165-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111168	36-017963	1286 W 23RD ST		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0166-0000	08/12/92	6Y	

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							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111169	36-017964	1290 W 23RD ST		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0167-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111170	36-017965	1298 W 23RD ST		SAN BERNARDINO	P	1974	HIST.RES.	DOE-36-92-0168-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111171	36-017966	1297 W 24TH ST		SAN BERNARDINO	P	1948	HIST.RES.	DOE-36-92-0169-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111172	36-017967	1330 W 25TH ST		SAN BERNARDINO	P		HIST.RES.	DOE-36-92-0170-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111173	36-017968	1339 W 26TH ST		SAN BERNARDINO	P	1955	HIST.RES.	DOE-36-92-0171-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
169955		733 W 27TH ST		SAN BERNARDINO	P	1937	PROJ.REVW.	HUD080131A	02/05/08	6Y	
111174	36-017969	1339 W 27TH ST		SAN BERNARDINO	P	1955	HIST.RES.	DOE-36-92-0172-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111175	36-017970	1341 W 27TH ST		SAN BERNARDINO	P	1955	HIST.RES.	DOE-36-92-0173-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111176	36-017971	1347 W 27TH ST		SAN BERNARDINO	P	1955	HIST.RES.	DOE-36-92-0174-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
174047		1798 W 27TH ST		SAN BERNARDINO	P	1955	PROJ.REVW.	HUD081106F	12/08/08	6Y	
111115	36-017972	805 W 2ND ST		SAN BERNARDINO	P	1986	HIST.RES.	DOE-36-92-0120-0000	08/12/92	6Y	
							PROJ.REVW.	FWHA920619A	08/12/92	6Y	
111116	36-017973	815 W 2ND ST		SAN BERNARDINO	P	1986	HIST.RES.	DOE-36-92-0121-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
164505		968 W 2ND ST		SAN BERNARDINO	P	1903	PROJ.REVW.	HUD061218E	12/18/06	6Y	
111029	36-017974	939 W 3RD ST	UNION ICE COMPANY	SAN BERNARDINO	P	1915	HIST.RES.	DOE-36-92-0103-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
091042	36-017975	1170 W 3RD ST	ATCHISON/TOPEKA/SANTA FE RAILWAY P	SAN BERNARDINO	M	1918	HIST.RES.	NPS-01000025-9999	02/02/01	1S	C
							NAT.REG.	36-0053	06/12/00	3S	C
							HIST.RES.	DOE-36-00-0491-0000	04/13/00	2S2	AC
							PROJ.REVW.	FHWA000329A	04/13/00	2S2	AC
							HIST.RES.	SPHI-SBR-053	08/07/75	7L	
131412		1170 W 3RD ST	LIGHT STAND	SAN BERNARDINO	M		HIST.RES.	NPS-01000025-0001	02/02/01	3S	C
154765		1329 W 3RD ST		SAN BERNARDINO	P	1904	PROJ.REVW.	FHWA000302A	03/01/02	6Y	
154764		1339 W 3RD ST		SAN BERNARDINO	P	1920	PROJ.REVW.	FHWA000302A	03/01/02	6Y	
091080	36-017976	562 W 4TH ST Demo	SAN BERNARDINO CALIFORNIA THEATRE	SAN BERNARDINO	P	1928	NAT.REG.	36-0094	09/12/08	7J	
							PROJ.REVW.	HUD951229A	02/02/96	2S2	AC
							HIST.RES.	SPHI-SBR-103	11/16/84	7L	
062745	36-017977	390 W 5TH ST Demo	U.S. POST OFFICE, SAN BERNARDINO D	SAN BERNARDINO	F	1931	HIST.RES.	NPS-85000136-0000	01/11/85	1S	C
							HIST.RES.	DOE-36-84-0001-0000	02/09/84	2S2	C
							PROJ.REVW.	USPS821104A	02/09/84	2S2	C
111028	36-017978	950 W 5TH ST	SANTA FE RAILROAD YARD STORAGE SHE	SAN BERNARDINO	P	1945	HIST.RES.	DOE-36-92-0102-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920169A	08/12/92	6Y	
111027	36-017979	955 W 5TH ST	ATCHISON TOPEKA & SANTA FE EMERGEN	SAN BERNARDINO	P	1910	HIST.RES.	DOE-36-92-0101-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
103209	36-017980	580 W 6TH ST		SAN BERNARDINO	P	1906	HIST.RES.	DOE-36-96-0014-0000	09/11/96	2S2	A
							PROJ.REVW.	HUD960513K	09/11/96	2S2	A
111024	36-017981	915 W 6TH ST		SAN BERNARDINO	P	1914	HIST.RES.	DOE-36-92-0097-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
062743	36-017982	976 W 6TH ST	DOROTHY INGHRAM HOME	SAN BERNARDINO	P	1890	HIST.SURV.	2401-0002-0000		7R	
133071		1099 W 6TH ST		SAN BERNARDINO	P	1940	HIST.RES.	DOE-36-00-0550-0000	08/07/00	6Y	
							PROJ.REVW.	HUD000703Q	08/07/00	6Y	
067235	36-017983	1143 W 6TH ST		SAN BERNARDINO	U		PROJ.REVW.	HUD900228P	03/22/90	6Y	
133048		1164 W 6TH ST		SAN BERNARDINO	P	1910	HIST.RES.	DOE-36-02-0020-0000	08/20/02	6Y	
							PROJ.REVW.	HUD020813G	08/20/02	6Y	
084533	36-017984	798 W 7TH ST		SAN BERNARDINO	P	1923	PROJ.REVW.	HUD930902B	10/07/93	6Y	
110936	36-017985	842 W 7TH ST		SAN BERNARDINO	P	1904	HIST.RES.	DOE-36-92-0020-0000	08/12/92	6Y	

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							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111117	36-017986	850 W 7TH ST		SAN BERNARDINO	P	1905	HIST.RES.	DOE-36-92-0122-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110937	36-017987	851 W 7TH ST		SAN BERNARDINO	P	1912	HIST.RES.	DOE-36-92-0021-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110938	36-017988	853 W 7TH ST		SAN BERNARDINO	P	1905	HIST.RES.	DOE-36-92-0022-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110939	36-017989	855 W 7TH ST		SAN BERNARDINO	P	1903	HIST.RES.	DOE-36-92-0023-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110940	36-017990	857 W 7TH ST		SAN BERNARDINO	P	1903	HIST.RES.	DOE-36-92-0024-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110935	36-017991	858 W 7TH ST		SAN BERNARDINO	P	1904	HIST.RES.	DOE-36-92-0019-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110934	36-017992	862 W 7TH ST		SAN BERNARDINO	P	1904	HIST.RES.	DOE-36-92-0018-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111023	36-017993	915 W 7TH ST		SAN BERNARDINO	P	1914	HIST.RES.	DOE-36-92-0097-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
067185	36-017994	1067 W 7TH ST	REAHBILITATION RESI	SAN BERNARDINO	U		PROJ.REVW.	HUD900228E	03/22/90	6Y	
095490	36-017995	1385 W 7TH ST		SAN BERNARDINO	P	1920	PROJ.REVW.	HUD950215C	04/11/95	6Y	
102285	36-017996	1524 W 7TH ST		SAN BERNARDINO	P	1925	HIST.RES.	DOE-36-96-0018-0000	05/13/96	2S2	AC
							PROJ.REVW.	HUD960423Y	05/13/96	2S2	AC
174050		1669 W 7TH ST		SAN BERNARDINO	P	1950	PROJ.REVW.	HUD081106B	12/09/08	6Y	
084358	36-017997	121 W 8TH ST		SAN BERNARDINO	P	1920	PROJ.REVW.	HUD930831G	09/28/93	6Y	
153721		696 W 8TH ST		SAN BERNARDINO	P	1801	PROJ.REVW.	HUD050407F	05/03/05	6Y	
152581		730 W 8TH ST		SAN BERNARDINO	P	1905	HIST.RES.	DOE-36-05-0001-0000	03/09/05	6Y	
							PROJ.REVW.	HUD050218I	03/09/05	6Y	
110948	36-017998	853 W 8TH ST		SAN BERNARDINO	P	1895	HIST.RES.	DOE-36-92-0030-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110951	36-017999	854 W 8TH ST		SAN BERNARDINO	P	1912	HIST.RES.	DOE-36-92-0033-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110949	36-018000	855 W 8TH ST		SAN BERNARDINO	P	1912	HIST.RES.	DOE-36-92-0031-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110950	36-018001	857 W 8TH ST		SAN BERNARDINO	P	1912	HIST.RES.	DOE-36-92-0032-0000	08/12/92	6Y	
							PROJ.REVW.	FWHA920619A	08/12/92	6Y	
111118	36-018002	864 W 8TH ST		SAN BERNARDINO	P	1920	HIST.RES.	DOE-36-92-0123-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111119	36-018003	880 W 8TH ST		SAN BERNARDINO	P	1959	HIST.RES.	DOE-36-92-0124-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111022	36-018004	905 W 8TH ST		SAN BERNARDINO	P	1915	HIST.RES.	DOE-36-92-0096-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
067204	36-018005	924 W 8TH ST		SAN BERNARDINO	P	1910	PROJ.REVW.	HUD070910G	09/12/07	6Y	
							PROJ.REVW.	HUD900319A	04/05/90	6Y	
133072		1123 W 8TH ST		SAN BERNARDINO	P	1927	HIST.RES.	DOE-36-00-0551-0000	08/07/00	6Y	
							PROJ.REVW.	HUD000703R	08/07/00	6Y	
166125		143 W 9TH		SAN BERNARDINO	P	1942	PROJ.REVW.	HUD070614I	06/20/07	6Y	
166124		167 W 9TH		SAN BERNARDINO	P	1916	PROJ.REVW.	HUD070614H	06/20/07	6Y	
166118		177 W 9TH ST		SAN BERNARDINO	P	1924	PROJ.REVW.	HUD070614G	06/20/07	6Y	
166119		179 W 9TH ST		SAN BERNARDINO	P	1924	PROJ.REVW.	HUD070614G	06/20/07	6Y	
133068		566 W 9TH ST		SAN BERNARDINO	P	1910	HIST.RES.	DOE-36-00-0548-0000	08/07/00	6Y	
							PROJ.REVW.	HUD000703O	08/07/00	6Y	
133066		687 W 9TH ST		SAN BERNARDINO	P		HIST.RES.	DOE-36-00-0547-0000	08/07/00	6Y	
							PROJ.REVW.	HUD000703N	08/07/00	6Y	
153975		747 W 9TH ST		SAN BERNARDINO	P	1928	PROJ.REVW.	HUD050510D	05/19/05		
							PROJ.REVW.	HUD050510D	05/19/05	6Y	
131424		1738 W 9TH ST		SAN BERNARDINO	P	1951	HIST.RES.	DOE-36-01-0019-0000	10/29/01	6Y	
							PROJ.REVW.	HUD010926E	10/29/01	6Y	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
162832		438 W BASE LINE ST	STUDIO THEATRE	SAN BERNARDINO	P	1935	PROJ.REVW.	HUD051216A	07/14/06	6Y	
169941		1960 W BASE LINE ST		SAN BERNARDINO	P	1921	PROJ.REVW.	HUD080122G	01/30/08	6Y	
103217	36-018006	536 W ELEVENTH ST		SAN BERNARDINO	M	1935	HIST.RES.	DOE-36-96-0009-0000	09/11/96	2S2	AC
							PROJ.REVW.	HUD960423V	09/11/96	2S2	AC
111182	36-018007	817 W ESPERANZA ST		SAN BERNARDINO	P	1935	HIST.RES.	DOE-36-92-0179-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111183	36-018008	868 W ESPERANZA ST		SAN BERNARDINO			HIST.RES.	DOE-36-92-0180-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
153725		1560 W GILBERT ST		SAN BERNARDINO	P	1955	PROJ.REVW.	HUD050425L	05/26/05	6Y	
100443	36-018009	1348 W GOODLETT ST		SAN BERNARDINO	P	1922	PROJ.REVW.	HUD960110A	02/05/96	6Y	
096398	36-018010	1571 W GOODLETT ST		SAN BERNARDINO	P	1945	PROJ.REVW.	HUD950526H	06/23/95	6Y	
162833		371 W HIGHLAND AVE		SAN BERNARDINO		1939	PROJ.REVW.	HUD051216A	07/14/06	6Y	
170428		2161 W HIGHLAND AVE		SAN BERNARDINO	P	1952	PROJ.REVW.	HUD080317P	03/19/08	6Y	
173093		1360 W KING ST		SAN BERNARDINO	P	1910	PROJ.REVW.	HUD080718K	08/11/08	6Y	
154763		1328 W KINGMAN ST		SAN BERNARDINO	P	1908	PROJ.REVW.	FHWA000302A	03/01/02	6Y	
154762		1358 W KINGMAN ST		SAN BERNARDINO	P	1930	PROJ.REVW.	FHWA000302A	03/01/02	6Y	
115643	36-018011	2124 W LINCOLN AVE	LOT #84 / MUSCOY #4 / TRACT #2353	SAN BERNARDINO	P	1947	HIST.RES.	DOE-36-98-0098-0000	05/30/98	6Y	
							PROJ.REVW.	FHWA980417A	05/30/98	6Y	
115644	36-018012	2186 W LINCOLN AVE	LOT #79 / MUSCOY #4 / TRACT #2353	SAN BERNARDINO	P	1925	HIST.RES.	DOE-36-98-0099-0000	05/20/98	6Y	
							PROJ.REVW.	FHWA980417A	05/20/98	6Y	
089197	36-018013	471 W MAGNOLIA AVE		SAN BERNARDINO	P	1918	PROJ.REVW.	HUD940408D	04/26/94	6Y	
111256	36-018014	895 W MILL ST		SAN BERNARDINO	P	1957	HIST.RES.	DOE-36-92-0240-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
091321	36-018015	1140 W MILL ST		SAN BERNARDINO	P	1947	HIST.RES.	DOE-36-96-0010-0000	05/13/96	6Y	
							PROJ.REVW.	HUD960423U	05/13/96	6Y	
							PROJ.REVW.	HUD940520D	09/12/94	6Y	
111259	36-018016	975 W OAK ST		SAN BERNARDINO	P	1960	HIST.RES.	DOE-36-92-0243-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
133074		780 W OLIVE ST		SAN BERNARDINO	P	1924	HIST.RES.	DOE-36-00-0553-0000	08/07/00	6Y	
							PROJ.REVW.	HUD000703T	08/07/00	6Y	
111260	36-018017	831 W OLIVE ST		SAN BERNARDINO	P	1924	HIST.RES.	DOE-36-92-0244-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111261	36-018018	839 W OLIVE ST		SAN BERNARDINO	P	1922	HIST.RES.	DOE-36-92-0245-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110968	36-018019	840 W OLIVE ST		SAN BERNARDINO	P	1925	HIST.RES.	DOE-36-92-0048-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920169A	08/12/92	6Y	
111262	36-018020	847 W OLIVE ST		SAN BERNARDINO	P	1922	HIST.RES.	DOE-36-92-0246-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110967	36-018021	848 W OLIVE ST		SAN BERNARDINO	P	1924	HIST.RES.	DOE-36-92-0047-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920169A	08/12/92	6Y	
111263	36-018022	855 W OLIVE ST		SAN BERNARDINO	P	1924	HIST.RES.	DOE-36-92-0247-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111264	36-018023	863 W OLIVE ST		SAN BERNARDINO	P	1924	HIST.RES.	DOE-36-92-0248-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111265	36-018024	917 W OLIVE ST		SAN BERNARDINO	P	1957	HIST.RES.	DOE-36-92-0249-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
126708	36-019712	1356 W OLIVE ST		SAN BERNARDINO	Y	1936	HIST.RES.	DOE-36-00-0494-0000	10/27/00	6Y	
							PROJ.REVW.	HUD000921E	10/27/00	6Y	
154516		1425 W OLIVE ST		SAN BERNARDINO	P	1955	PROJ.REVW.	HUD050527L	06/17/05	6Y	
111267	36-018025	505 W ORANGE SHOW RD		SAN BERNARDINO	P	1983	HIST.RES.	DOE-36-92-0251-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
089325	36-018026	823 W ORANGE ST		SAN BERNARDINO	P	1905	PROJ.REVW.	HUD940428D	05/16/94	6Y	
110980	36-018027	839 W ORANGE ST		SAN BERNARDINO	P	1917	HIST.RES.	DOE-36-92-0057-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110981	36-018028	841 W ORANGE ST		SAN BERNARDINO	P	1917	HIST.RES.	DOE-36-92-0058-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	

PROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.....	NAMES.....	CITY.NAME.....	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
111266	36-018029	855 W ORANGE ST		SAN BERNARDINO	P		HIST.RES.	DOE-36-92-0250-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110982	36-018030	863 W ORANGE ST		SAN BERNARDINO	P	1925	HIST.RES.	DOE-36-92-0059-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
091794	36-018031	1354 W POPLAR ST		SAN BERNARDINO	P	1923	PROJ.REVW.	HUD940825Y	10/13/94	6Y	
092545	36-018032	1246 W RIALTO AVE		SAN BERNARDINO	P	1915	PROJ.REVW.	HUD940829J	11/01/94	6Y	
110960	36-018033	829 W TEMPLE ST		SAN BERNARDINO	P	1920	HIST.RES.	DOE-36-92-0040-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110964	36-018034	832 W TEMPLE ST		SAN BERNARDINO	P	1920	HIST.RES.	DOE-36-92-0044-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920169A	08/12/92	6Y	
110963	36-018035	834 W TEMPLE ST		SAN BERNARDINO	P	1920	HIST.RES.	DOE-36-92-0043-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA92016A	08/12/92	6Y	
111271	36-018036	838 W TEMPLE ST		SAN BERNARDINO	P	1920	HIST.RES.	DOE-36-92-0254-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110961	36-018037	839 W TEMPLE ST		SAN BERNARDINO	P	1920	HIST.RES.	DOE-36-92-0041-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111272	36-018038	856 W TEMPLE ST		SAN BERNARDINO	P	1914	HIST.RES.	DOE-36-92-0255-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111273	36-018039	857 W TEMPLE ST		SAN BERNARDINO	P	1915	HIST.RES.	DOE-36-92-0256-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110962	36-018040	869 W TEMPLE ST		SAN BERNARDINO	P	1914	HIST.RES.	DOE-36-92-0042-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
101328	36-018041	1432 W UNION ST		SAN BERNARDINO	P	1929	PROJ.REVW.	HUD960208I	03/19/96	6Y	
096755	36-018042	1684 W UNION ST		SAN BERNARDINO	P	1928	PROJ.REVW.	HUD950609C	07/18/95	6Y	
166287		828 W VINE ST		SAN BERNARDINO	P	1930	PROJ.REVW.	HUD070705D	07/09/07	6Y	
110946	36-018043	836 W VINE ST		SAN BERNARDINO	P	1901	HIST.RES.	DOE-36-92-0029-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110942	36-018044	845 W VINE ST		SAN BERNARDINO	P	1912	HIST.RES.	DOE-36-92-0025-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
111281	36-018045	854 W VINE ST		SAN BERNARDINO	P	1912	HIST.RES.	DOE-36-92-0264-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110943	36-018046	855 W VINE ST		SAN BERNARDINO	P	1905	HIST.RES.	DOE-36-92-0026-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110944	36-018047	859 W VINE ST		SAN BERNARDINO	P	1912	HIST.RES.	DOE-36-92-0027-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110945	36-018048	860 W VINE ST		SAN BERNARDINO	P	1906	HIST.RES.	DOE-36-92-0028-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
163353		734 W VIRGINIA ST		SAN BERNARDINO	P	1928	PROJ.REVW.	HUD061019I	10/19/06	6Y	
144854		207 W WABASH ST		SAN BERNARDINO	P	1946	HIST.RES.	DOE-36-03-0040-0000	11/20/03	6Y	
							PROJ.REVW.	HUD031120A	11/20/03	6Y	
124751	36-019684	249 W WABASH ST		SAN BERNARDINO	M	1922	PROJ.REVW.	HUD000605BD	06/15/00	6Y	
124750	36-019683	268 W WABASH ST		SAN BERNARDINO	M	1947	PROJ.REVW.	HUD000605BC	06/15/00	6Y	
115645	36-018049	2123 W WASHINGTON	LOT #58 / MUSCOY #4 / TRACT #2353	SAN BERNARDINO	P	1939	HIST.RES.	DOE-36-98-0100-0000	05/20/98	6Y	
							PROJ.REVW.	FHWA980417A	05/20/98	6Y	
115646	36-018050	2171 W WASHINGTON	LOT #63 / MUSCOY #4 / TRACT #2353	SAN BERNARDINO	P	1944	HIST.RES.	DOE-36-98-0101-0000	05/20/98	6Y	
							PROJ.REVW.	FHWA980417A	05/20/98	6Y	
133046		257 WABASH ST		SAN BERNARDINO	P	1952	HIST.RES.	DOE-36-02-0018-0000	08/20/02	6Y	
							PROJ.REVW.	HUD020813H	08/20/02	6Y	
110920	36-018051	157 WALKINSHAW ST		SAN BERNARDINO	P	1925	HIST.RES.	DOE-36-92-0007-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110921	36-018052	167 WALKINSHAW ST		SAN BERNARDINO	P	1924	HIST.RES.	DOE-36-92-0008-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110922	36-018053	181 WALKINSHAW ST		SAN BERNARDINO	P	1928	HIST.RES.	DOE-36-92-0008-0000	08/12/92	6Y	
							PROJ.REVW.	FWHA920619A	08/12/92	6Y	

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111291	36-018054	187 WALKINSHAW ST		SAN BERNARDINO	P	1926	HIST.RES.	DOE-36-92-0273-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110923	36-018055	197 WALKINSHAW ST		SAN BERNARDINO	P	1927	HIST.RES.	DOE-36-92-0010-0000	08/12/92	6Y	
							PROJ.REVW.	FHWA920619A	08/12/92	6Y	
110924	36-018056	211 WALKINSHAW ST		SAN BERNARDINO	P	1901	HIST.RES.	DOE-36-92-0011-0000	08/12/92	6Y	
							PROJ.REVW.	FWHA920619A	08/12/92	6Y	
166578		2805 WALL AVE		SAN BERNARDINO	P	1935	PROJ.REVW.	HUD070713E	07/19/07	6Y	
153651		980 WESTERN AVE		SAN BERNARDINO	P	1924	PROJ.REVW.	HUD050407C	05/05/05	6Y	
124725	36-019659	1130 WESTERN AVE		SAN BERNARDINO	M	1927	PROJ.REVW.	HUD000605AF	06/15/00	6Y	
124724	36-019658	1130 WESTERN AVE		SAN BERNARDINO	M	1927	PROJ.REVW.	HUD000605AF	06/15/00	6Y	
124754	36-019687	1423 WINDSOR DR	PROPERTY ACQUISITION AND REHABILIT	SAN BERNARDINO	M	1948	PROJ.REVW.	HUD000605BG	06/15/00	6Y	
090431	36-018058	DEVORE RD	SYCAMORE GROVE	(VIC) SAN BERNARD	M		HIST.RES.	SHL-0573-0000	04/01/57	7L	
091051	36-018059	JEFFERS RD	DEL ROSA SWAMP	(VIC) SAN BERNARD	U		HIST.RES.	SPHI-SBR-065	08/07/75	7L	
147750		1800 OLD WATERMAN CANYON R		(VIC) SAN BERNARD	C	1929	HIST.RES.	DOE-36-04-0008-0000	06/24/04	6Y	
							PROJ.REVW.	FEMA040615A	06/24/04	6Y	
147742		1800 OLD WATERMAN CANYON R	CULVERT 1	(VIC) SAN BERNARD	C	1929	HIST.RES.	DOE-36-04-0005-0000	06/24/04	6Y	
							PROJ.REVW.	FEMA040615A	06/24/04	6Y	
147748		1800 OLD WATERMAN CANYON R	CULVERT 2	(VIC) SAN BERNARD	C	1929	HIST.RES.	DOE-36-04-0006-0000	06/24/04	6Y	
							PROJ.REVW.	FEMA040615A	06/24/04	6Y	
147749		1800 OLD WATERMAN CANYON R	CULVERT 3	(VIC) SAN BERNARD	C	1929	HIST.RES.	DOE-36-04-0007-0000	06/24/04	6Y	
							PROJ.REVW.	FEMA040615A	06/24/04	6Y	
090435	36-018061	SR 15	STODDARD-WAITE MONUMENT	(VIC) SAN BERNARD	C		HIST.RES.	SHL-0578-0000	05/17/57	7L	
090433	36-018060	SR 15	SANTA FE AND SALT LAKE TRAIL MONUM	(VIC) SAN BERNARD	P		HIST.RES.	SHL-0576-0000	05/17/57	7L	
089571	36-018062	WATERMAN CANYON	THE ARROWHEAD	(VIC) SAN BERNARD	F		HIST.RES.	SHL-0977-0000	04/01/88	1CL	
067759	36-018063		TAHQUITZ PEAK LOOKOUT / FS #4207	SBR NF	F		HIST.RES.	DOE-36-89-0002-0000	12/14/89	2S2	AC
							PROJ.REVW.	USFS891005B	12/14/89	2S2	AC
067758	36-018064		BUTLER PEAK FIRE LOOKOUT	SBR NF	F	1934	PROJ.REVW.	USFS060515A	05/31/06	2S2	AC
							HIST.RES.	DOE-36-89-0001-0000	12/14/89	2S2	AC
							PROJ.REVW.	USFS891005B	12/14/89	2S2	AC
068261	36-018068		SW SHORE COLONY - BIG BEAR	SBR NF	U		HIST.RES.	DOE-36-88-0003-0000	12/09/88	2S2	AC
							PROJ.REVW.	USFS881128A	12/09/88	2S2	AC
068467	36-018065		PEPPE CABIN	SBR NF	U	1935	HIST.RES.	DOE-36-90-0015-0000	09/04/90	6Y	
							PROJ.REVW.	USFS900813A	09/04/90	6Y	
068468	36-018069		HEART BAR BARN	SBR NF	U	0	HIST.RES.	DOE-36-90-0016-0000	09/04/90	6Y	
							PROJ.REVW.	USFS900813B	09/04/90	6Y	
069239	36-018067		MORTON PEAK LOOKOUT	SBR NF	U	1933	HIST.RES.	DOE-36-90-0014-0000	11/21/90	6Y	
							PROJ.REVW.	USFS901022M	11/21/90	6Y	
068083	36-018066		UPPER & LOWER CREST SUMMER HOME TR	SBR NF	U	1925	HIST.RES.	DOE-36-91-0013-0000	08/15/90	6Y	
							PROJ.REVW.	USFS900716G	08/15/90	6Y	
079699	36-018070		CABIN #3, LYTLE CREEK SUMMER HOME	SBR NF	U	1930	HIST.RES.	DOE-36-92-0275-0000	12/20/92	6Y	
							PROJ.REVW.	USFS921207E	12/30/92	6Y	
091082	~~36-018071~~ 004034		PINECREST RESORT DINING HALL	SBR NF	P	1905	HIST.RES.	SPHI-SBR-105	02/20/85	7L	
107628	36-018072		CAJON MOUNTAIN LOOKOUT	SBR NF		1935	HIST.RES.	DOE-36-97-0111-0000	04/28/97	6Y	
							PROJ.REVW.	USFS961223A	04/28/97	6Y	
150981	P36011252		CAMP ROUND MEADOW CRAFT LODGE	SBR NF	F	1928	HIST.RES.	DOE-36-04-0020-0000	01/23/04	6Y	
							PROJ.REVW.	USFS031210L	01/23/04	6Y	
150980	P36011252		CAMP ROUND MEADOW CRAFT LODGE	SBR NF	F	1928	HIST.RES.	DOE-36-04-0019-0000	01/23/04	6Y	
							PROJ.REVW.	USFS030912B	01/23/04	6Y	
163824			STETSON CREEK RECREATION RESIDENCE	SBR NF	P	1906	HIST.RES.	DOE-36-06-0001-9999	10/03/06	2S2	AC
							PROJ.REVW.	USFS060906A	10/03/06	2S2	AC
164380			LOT 1/ MIDDLE FORK RECREATION RESI	SBR NF	P	1923	PROJ.REVW.	USFS060227C	03/14/06	6Y	
163840			LOT 16/ STETSON CREEK RECREATION R	SBR NF	P	1942	HIST.RES.	DOE-36-06-0001-0007	10/03/06	2D2	
							PROJ.REVW.	USFS060906A	10/03/06	2D2	

APPENDIX E4

CULTURAL RESOURCES REPORTS FOR THE SEVEN REDEVELOPMENT AREAS ON FILE AT THE SAN BERNARDINO ARCHAEOLOGICAL INFORMATION CENTER, SAN BERNARDINO COUNTY MUSEUM, REDLANDS

CULTURAL RESOURCES REPORTS FOR THE SEVEN REDEVELOPMENT AREAS ON FILE AT THE SAN BERNARDINO ARCHAEOLOGICAL INFORMATION CENTER, SAN BERNARDINO COUNTY MUSEUM, REDLANDS

15pp

Document No.: 1060122 Unpublished Report
SMITH, GERALD A.

1972 ARCHAEOLOGICAL SURVEY OF THE LYTLE AND WARM CREEK AREAS. SAN BERNARDINO COUNTY MUSEUM. SUBMITTED TO NATIONAL PARK SERVICE. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 11/14/1988 Cataloged by: WRO-CA-03 on 11/09/1988
Keywords: PREHISTORIC (1), ARCHAEOLOGICAL SURVEY REPORT (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), 72-3.2 (7), NO RESOURCES (4)

Document No.: 1060412 Unpublished Report
SIMPSON, RUTH D., LARRY E. BURGESS, AND ARDA HAENSZEL

1976 ARCHAEOLOGICAL - HISTORICAL RESOURCES ASSESSMENT OF SAN BERNARDINO CITY LIBRARY PROJECT. SAN BERNARDINO COUNTY MUSEUM ASSOCIATION. SUBMITTED TO CITY OF SAN BERNARDINO. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 12/07/1988 Cataloged by: WRO-CA-03 on 12/07/1988
Keywords: PREHISTORIC (1), HISTORIC (1), ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), NO RESOURCES (4), 76-10.21 (7)

Document No.: 1060413 Unpublished Report
SIMPSON, RUTH D. AND LARRY E. BURGESS

1976 ARCHAEOLOGICAL - HISTORICAL RESOURCES ASSESSMENT OF SAN BERNARDINO CITY CENTRAL FIRE STATION. SAN BERNARDINO COUNTY MUSEUM ASSOCIATION. SUBMITTED TO CITY OF SAN BERNARDINO. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 12/07/1988 Cataloged by: WRO-CA-03 on 12/07/1988
Keywords: PREHISTORIC (1), HISTORIC (1), ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), NO RESOURCES (4), 76-10.22 (7)

Document No.: 1060531 Unpublished Report
HEARN, JOSEPH E.

1977 ARCHAEOLOGICAL - HISTORICAL RESOURCES ASSESSMENT OF SOUTHEAST INDUSTRIAL PARK, SAN BERNARDINO. SAN BERNARDINO COUNTY MUSEUM ASSOCIATION. SUBMITTED TO SAN BERNARDINO COUNTY ECONOMIC DEVELOPMENT COUNCIL. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 12/15/1988 Cataloged by: WRO-CA-03 on 12/15/1988
Keywords: PREHISTORIC (1), HISTORIC (1), ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), NO RESOURCES (4), 77-8.2 (7)

Document No.: 1060791 Unpublished Report
HEARN, JOSEPH E.

1979 CULTURAL RESOURCES ASSESSMENT OF MILL STREET AT WARM CREEK. SAN BERNARDINO COUNTY MUSEUM ASSOCIATION. SUBMITTED TO CITY OF SAN BERNARDINO. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 01/11/1989 Cataloged by: WRO-CA-03 on 01/11/1989
Keywords: PREHISTORIC (1), HISTORIC (1), ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), NO RESOURCES (4), 79-5.4 (7)

Document No.: 1060847 Unpublished Report
SIMPSON, RUTH D. AND ARDA M. HAENSZEL

1979 CULTURAL RESOURCES ASSESSMENT: SECCOMBE LAKE PARK, SAN BERNARDINO, CALIFORNIA. SAN BERNARDINO COUNTY MUSEUM ASSOCIATION. SUBMITTED TO PLANNING CONSULTANTS RESEARCH. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 04/05/1989 Cataloged by: WRO-CA-03 on 01/13/1989
Keywords: PREHISTORIC (1), HISTORIC (1), ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), ADOBE RESIDENTIAL STRUCTURE (1), MORMON (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), CA-SBR-5554H (4), 79-10.4 (7)

Document No.: 1061111 Unpublished Report
SMITH, GERALD A. AND MICHAEL K. LERCH

1981 CULTURAL RESOURCES ASSESSMENT OF THE PROPOSED PATTON FARMS RESIDENTIAL HOUSING PROJECT, SAN BERNARDINO. SAN BERNARDINO COUNTY MUSEUM ASSOCIATION. SUBMITTED TO CITY OF SAN BERNARDINO. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 03/01/1989 Cataloged by: WRO-CA-03 on 03/01/1989
Keywords: PREHISTORIC (1), HISTORIC (1), ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), NO RESOURCES (4), 81-4.1 (7)

Document No.: 1061133 Unpublished Report
LERCH, MICHAEL K.

1981 CULTURAL RESOURCES ASSESSMENT OF THE TIPPECANOE AVENUE PROJECT, SAN BERNARDINO, CALIFORNIA. SAN BERNARDINO COUNTY MUSEUM ASSOCIATION. SUBMITTED TO C M ENGINEERING ASSOCIATES. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 03/06/1989 Cataloged by: WRO-CA-03 on 03/06/1989
Keywords: PREHISTORIC (1), HISTORIC (1), ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), INTERMONTANE VALLEY (4), SANTA ANA RIVER (4), SAN BERNARDINO VALLEY (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), NO RESOURCES (4), 81-6.1A (7)

Document No.: 1061134 Unpublished Report
LERCH, MICHAEL K.

1981 ADDENDUM TO CULTURAL RESOURCES ASSESSMENT OF THE TIPPECANOE AVENUE PROJECT. SAN BERNARDINO COUNTY MUSEUM ASSOCIATION. SUBMITTED TO C M ENGINEERING ASSOCIATES. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 03/06/1989 Cataloged by: WRO-CA-03 on 03/06/1989
Keywords: HISTORIC (1), HISTORIC STRUCTURE EVALUATION (1), BRIDGE (1), INTERMONTANE VALLEY (4), SANTA ANA RIVER (4), SAN BERNARDINO VALLEY (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), NO RESOURCES (4), 81-6.1B (7)

Document No.: 1061163 Unpublished Report
SMITH, GERALD A., ARDA HAENSZEL, AND MICHAEL K. LERCH

1981 CULTURAL RESOURCES REPORT FOR SUPERMARKET COMPLEX IN THE CENTRAL CITY AREA OF SAN BERNARDINO. SAN BERNARDINO COUNTY MUSEUM ASSOCIATION. SUBMITTED TO CITY OF SAN BERNARDINO - COMMUNITY DEVELOPMENT. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 03/13/1989 Cataloged by: WRO-CA-03 on 03/13/1989
Keywords: PREHISTORIC (1), HISTORIC (1), ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), SUGS SAN BERNARDINO SOUTH 7.5' QUAD (4), NO RESOURCES (4), 81-7.7 (7)

Document No.: 1061287 Unpublished Report
LERCH, MICHAEL K.

1982 CULTURAL RESOURCES ASSESSMENT OF THE SANTA ANA REGIONAL INTERCEPTOR, REACHES IV-D AND IV-E, SAN BERNARDINO AND RIVERSIDE COUNTIES, CALIFORNIA. SAN BERNARDINO COUNTY MUSEUM ASSOCIATION. SUBMITTED TO JONES & STROKES ASSOCIATES, INC. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 04/10/1989 Cataloged by: WRO-CA-03 on 04/10/1989
Keywords: PREHISTORIC (1), HISTORIC (1), ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), CHAPEL SITE (1), SCHOOL SITE (1), INTERMONTANE VALLEY (4), PRADO BASIN (4), SANTA ANA RIVER (4), USGS PRADO DAM 7.5' QUAD (4), USGS CORONA NORTH 7.5' QUAD (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), CA-SBR-1575/H (4), CA-SBR-4952H (4), 82-7.3 (7)

Document No.: 1061371 Unpublished Report
PLANNING, MARSHA LEE

1983 MARTIN ADOBE: HISTORICAL RESEARCH, SECCOMBE STATE PARK - SAN BERNARDINO, CA. HARRIS ARCHITECTS. SUBMITTED TO FLORIAN/MARTINEZ ASSOCIATES. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 04/26/1989 Cataloged by: WRO-CA-03 on 04/26/1989
Keywords: HISTORIC (1), HISTORIC STRUCTURE HISTORY (1), ADOBE RESIDENCE (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), CA-SBR-5554H (4), 1850'S AD - PRESENT (5), 83-3.6 (7)

Document No.: 1061499 Unpublished Report
FOSTER, JOHN M. AND ROBERTA S. GREENWOOD

1985 CULTURAL RESOURCES OVERVIEW: CALIFORNIA PORTION, PROPOSED PACIFIC TEXAS PIPELINE PROJECT. GREENWOOD AND ASSOCIATES. SUBMITTED TO ENGINEERING-SCIENCE. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 05/26/1989 Cataloged by: WRO-CA-03 on 05/26/1989
Keywords: PREHISTORIC (1), LITERATURE REVIEW (1), CULTURAL HISTORY (1), INTERMONTANE VALLEY (4), SANTA ANA RIVER (4), SAN BERNARDINO VALLEY (4), USGS ONTARIO 7.5' QUAD (4), USGS REDLANDS 7.5' QUAD (4), USGS CORONA NORTH 7.5' QUAD (4), USGS GUASTI 7.5' QUAD (4), USGS FONTANA 7.5' QUAD (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), USGS PRADO DAM 7.5' QUAD (4), NO RESOURCES (4), 85-7.4A-B (7)

Document No.: 1061562 Unpublished Report
SCHULZ, PETER D.

1986 MARTIN ADOBE, SECCOMBE LAKE OF S.U.R.A.: PRELIMINARY SUMMARY OF FIELD WORK RESULTS AND RESTORATION RECOMMENDATIONS. PETER D. SCHULZ. SUBMITTED TO CALIFORNIA DEPARTMENT OF PARKS AND RECREATION. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 06/09/1989 Cataloged by: WRO-CA-03 on 06/09/1989
Keywords: HISTORIC (1), HISTORIC STRUCTURE REPORT (1), ADOBE RESIDENCE (1), ARCHAEOLOGICAL TESTING (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), CA-SBR-5554H (4), 86-4.3 (7)

Document No.: 1061572 Unpublished Report
LUBERSKI, ALEXANDRA

1986 MARTIN ADOBE SITE - SAN BERNARDINO - SECCOMBE LAKE STATE RECREATION AREA, SUPPLEMENTAL RESEARCH. ALEXANDRA LUBERSKI. SUBMITTED TO CALIFORNIA DEPARTMENT OF PARKS AND RECREATION. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 06/28/1989 Cataloged by: WRO-CA-03 on 06/12/1989
Keywords: HISTORIC (1), HISTORIC STRUCTURE REPORT (1), ADOBE RESIDENCE (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), CA-SBR-5554H (4), 86-6.5 (7)

Document No.: 1061729 Unpublished Report
SCHULZ, PETER D. AND ALEXANDRA H. LUBERSKI

1987 HISTORY AND STRUCTURAL EVOLUTION OF THE MARTIN ADOBE, SAN BERNARDINO, CALIFORNIA. PETER D. SCHULZ AND ALEXANDRA H. LUBERSKI. SUBMITTED TO CALIFORNIA DEPARTMENT OF PARKS AND RECREATION. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 06/28/1989 Cataloged by: WRO-CA-03 on 06/28/1989
Keywords: HISTORIC (1), HISTORIC STRUCTURES REPORT (1), ADOBE HOUSE (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), CA-SBR-5554H (4), 87-9.8 (7)

Document No.: 1061808 Unpublished Report
HAMPSON, R. PAUL, JERREL SORENSEN, SUSAN K. GOLDBERG, MARK T. SWANSON, AND

JEANNE E. ARNOLD

1988 CULTURAL RESOURCES SURVEY, UPPER SANTA ANA RIVER, CALIFORNIA. GREENWOOD & ASSOCIATES AND INFOTEC. SUBMITTED TO U.S. ARMY CORPS OF ENGINEERS. CONTRACT NO. DACW09-86-D-0034. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 06/30/1989 Cataloged by: WRO-CA-03 on 06/30/1989
Keywords: PREHISTORIC (1), HISTORIC (1), ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), FOOD PROCESSING SITES (1), FARMING SITES (1), BEDROCK SLICKS (1), REFUSE DISPOSAL SITES (1), CHINESE (1), HYDROELECTRIC SITES (1), BEDROCK MORTARS (1), RAILROADING SITES (1), BRIDGES (1), WATER DIVERSION SITES (1), SAN SALVADOR TOWNSITE (1), LITHIC SCATTERS (1), GLASS BOTTLES (3), TINNED CANS (3), CERAMICS (3), GROUND STONE (3), METAL HARDWARE (3), FLAKED LITHICS (3), CHERT (3), QUARTZ (3), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), SANTA ANA RIVER (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), USGS REDLANDS 7.5' QUAD (4), USGS YUCAIPA 7.5' QUAD (4), CA-SBR-6060H (4), CA-SBR-6061H (4), CA-SBR-6062H (4), CA-SBR-6063H (4), CA-SBR-6064H (4), CA-SBR-6065H (4), CA-SBR-6066H (4), CA-SBR-6067H (4), CA-SBR-6068H (4), CA-SBR-6069H (4), CA-SBR-6070H (4), CA-SBR-6071H (4), CA-SBR-6072H (4), CA-SBR-6073H (4), CA-SBR-6074H (4), CA-SBR-6075H (4), CA-SBR-6076H (4), CA-SBR-6077H (4), CA-SBR-6078H (4), CA-SBR-6079H (4), CA-SBR-6080H (4), CA-SBR-6081H (4), CA-SBR-6082H (4), CA-SBR-6083H (4), CA-SBR-6084H (4), CA-SBR-6085H (4), CA-SBR-6086H (4), CA-SBR-6087H (4), CA-SBR-6088H (4), CA-SBR-6089H (4), CA-SBR-6090H (4), CA-SBR-6091H (4), CA-SBR-6092H (4), CA-SBR-6093H (4), CA-SBR-6094H (4), CA-SBR-6095H (4), CA-SBR-6096H (4), CA-SBR-6097H (4), CA-SBR-6098H (4), CA-SBR-6099H (4), CA-SBR-6100H (4), CA-SBR-6101H (4), CA-SBR-6102H (4), CA-SBR-6103H (4), CA-SBR-144 (4), CA-SBR-1577 (4), CA-RIV-559/H (4), CA-RIV-3353H (4), CA-RIV-3354H (4), CA-RIV-3356H (4), CA-RIV-3357H (4), CA-RIV-3358H (4), CA-RIV-3359H (4), CA-RIV-3360H (4), CA-RIV-3361H (4), CA-RIV-127 (4), CA-RIV-561 (4), CA-RIV-620 (4), CA-RIV-621 (4), CA-RIV-622 (4), CA-RIV-3355 (4), CA-RIV-3362 (4), CA-RIV-3363 (4), 88-6.5 (7)

Document No.: 1061821 Unpublished Report
PEAK & ASSOCIATES, INC.

1988 CULTURAL RESOURCE SURVEY AND CLEARANCE FOR AN AT&T FIBEROPTIC COMMUNICATION CABLE RE-ROUTE FROM SAN BERNARDINO NORTHWEST TO SAN BERNARDINO NATIONAL FOREST BOUNDARY. PEAK & ASSOCIATES, INC. SUBMITTED TO A T & T. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 06/30/1989 Cataloged by: WRO-CA-03 on 06/30/1989
Keywords: PREHISTORIC (1), HISTORIC (1), ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), DEVORE 7.5' QUAD (4), USGS SAN BERNARDINO NORTH 7.5' QUAD (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), NO RESOURCES (4), 88-7.12 (7)

Document No.: 1061852 Unpublished Report
HAMPSON, R. PAUL AND MARK T. SWANSON

1989 CULTURAL RESOURCES SURVEY, SAN TIMOTEO WASH FLOOD CONTROL PROJECT. GREENWOOD & ASSOCIATES. SUBMITTED TO U.S. ARMY CORPS OF ENGINEERS. CONTRACT NO. DACW09-88-D-0007. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 07/03/1989 Cataloged by: WRO-CA-03 on 07/03/1989
Keywords: PREHISTORIC (1), HISTORIC (1), CULTURAL HISTORY (1), FARMING SITES (1), REFUSE DISPOSAL SITES (1), WINERY SITE (1), BRIDGES (1), ROAD (1), CANALS (1), CERAMICS (3), GLASS BOTTLES (3), TINNED CANS (3), METAL HARDWARE (3), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), CA-SBR-6008H (4), CA-SBR-6173H (4), CA-SBR-6174H (4), CA-SBR-6169H (4), CA-SBR-6173H (4), P1063-32-H (4), P1063-40-H (4), P1063-41-H (4), PSBR-1-H (4), P1074-73-H (4), DO-7-88-E (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), USGS REDLANDS 7.5' QUAD (4), 89-1.6 (7)

Document No.: 1062091 Unpublished Report
SWANSON, MARK T.

1990 CULTURAL RESOURCES SURVEY OF CUP 90-11, A 0.81-ACRE TRACT, 101 NORTH "E" STREET, SAN BERNARDINO, SAN BERNARDINO COUNTY, CALIFORNIA. RESEARCH ASSOCIATES. SUBMITTED TO PERFORMANCE AUTO CENTERS. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 10/09/1990 Cataloged by: WRO-CA-03 on 10/09/1990
Keywords: PREHISTORIC (1), HISTORIC (1), ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), CULTURAL HISTORY (1), INTERMONTAINE VALLEY (4), SAN BERNARDINO VALLEY (4), NO RESOURCES (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), 90-4.4 (7)

Document No.: 1062113 Unpublished Report
HATHEWAY, ROGER G.

1990 DETERMINATION OF ELIGIBILITY REPORT FOR THE PLATT BUILDING. HATHEWAY & ASSOCIATES. SUBMITTED TO CITY OF SAN BERNARDINO. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 10/10/1990 Cataloged by: WRO-CA-03 on 10/10/1990
Keywords: HISTORIC (1), HISTORIC ARCHIVAL STUDY (1), COMMERCIAL BUILDING (1), INTERMONTAINE VALLEY (4), SAN BERNARDINO VALLEY (4), P1074-38-H (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), 90-6.8 (7)

Document No.: 1062156 Unpublished Report
MCKENNA, JEANETTE A.

1990 REPORT ADDENDUM: A PHASE I ARCHAEOLOGICAL SURVEY OF THE PROPOSED SANTA ANA WATERSHED PROJECT AUTHORITY (SAWPA) PIPELINE RIGHT-OF-WAY, SAN BERNARDINO TO COLTON, SAN BERNARDINO, CALIFORNIA. MCKENNA ET AL. SUBMITTED TO URS CONSULTANTS. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 10/31/1990 Cataloged by: WRO-CA-03 on 10/16/1990
Keywords: PREHISTORIC (1), HISTORIC (1), ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), INTERMONTAINE VALLEY (4), SAN BERNARDINO VALLEY (4), SANTA ANA RIVER (4), NO RESOURCES (4), 90-9.2 (7), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4)

Document No.: 1062163 Unpublished Report
SWANSON, MARK T.

1990 CULTURAL RESOURCES SURVEY OF CUP 90-52, A 0.42-ACRE TRACT, 796 WEST 5TH STREET, SAN BERNARDINO, SAN BERNARDINO COUNTY, CALIFORNIA. RESEARCH

ASSOCIATES. SUBMITTED TO WILLIAM BLAND. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 10/16/1990 Cataloged by: WRO-CA-03 on 10/16/1990
Keywords: HISTORIC (1), ARCHIVAL SEARCH (1), INTERMONTAINE VALLEY (4), SAN BERNARDINO VALLEY (4), NO RESOURCES (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), 90-10.1 (7)

Document No.: 1062216 Unpublished Report
CARR, PETER E. AND J. STEPHEN ALEXANDROWICZ

1990 A CULTURAL RESOURCE ASSESSMENT OF THE SAN BERNARDINO COUNTY CENTRAL CREDIT UNION AND SAN BERNARDINO PUBLIC EMPLOYEE ASSOCIATION PROJECT, CITY OF SAN BERNARDINO, COUNTY OF SAN BERNARDINO, CALIFORNIA. CHAMBERS GROUP. SUBMITTED TO PAUL A. RIGANO. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 12/28/1990 Cataloged by: WRO-CA-03 on 12/28/1990
Keywords: PREHISTORIC (1), HISTORIC (1), ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), INTERMONTAINE VALLEY (4), SAN BERNARDINO VALLEY (4), NO RESOURCES (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), 90-12.7 (7)

Document No.: 1062224 Unpublished Report
ALEXANDROWICZ, J. STEPHEN AND PETER E. CARR

1991 ARCHIVAL RESEARCH: URBAN ARCHAEOLOGICAL INVESTIGATIONS FOR THE PROPOSED WELLS FARGO OFFICE BUILDING PARKING STRUCTURE PROJECT, CITY OF SAN BERNARDINO, COUNTY OF SAN BERNARDINO, CALIFORNIA. CHAMBERS GROUP. SUBMITTED TO KETTERING AND KRUSSMAN. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 11/02/1991 Cataloged by: WRO-CA-03 on 10/09/1991
Keywords: HISTORICAL (1), ARCHIVAL STUDY (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), NO RESOURCES (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), 91-1.3 (7)

Document No.: 1062232 Unpublished Report
PEAK & ASSOCIATES

1990 PART 1 -- CULTURAL RESOURCES ASSESSMENT OF THE SAN BERNARDINO COUNTY AND RIVERSIDE COUNTY SECTIONS OF AT&T'S PROPOSED SAN BERNARDINO TO SAN DIEGO FIBER OPTIC CABLE. PEAK & ASSOCIATES. SUBMITTED TO AMERICAN TELEPHONE & TELEGRAPH CO. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 11/02/1991 Cataloged by: WRO-CA-03 on 10/09/1991
Keywords: PREHISTORIC (1), HISTORIC (1), LITERATURE REVIEW (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), SANTA ANA RIVER (4), NO NEW RESOURCES (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), 90-1.17 (7)

Document No.: 1062403 Unpublished Report
HATHEWAY, ROGER G.

1991 DETERMINATION OF ELIGIBILITY REPORT FOR A COMMERCIAL PROPERTY LOCATED AT 364 NORTH ARROWHEAD AVENUE, SAN BERNARDINO, CALIFORNIA. HATHEWAY & ASSOCIATES. SUBMITTED TO SUN CO. UNPUBLISHED REPORT ON FILE

AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 05/20/1992 Cataloged by: WRO-CA-03 on 05/20/1992
Keywords: HISTORIC (1), HISTORIC STRUCTURES RECONNAISSANCE REPORT (1), HISTORIC STRUCTURES EVALUATION REPORT (1), COMMERCIAL STRUCTURE (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), P1074-128H (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), 91-4.4 (7)

Document No.: 1062415 Unpublished Report
WLODARSKI, ROBERT J.

1991 FINAL REPORT: AN ARCHAEOLOGICAL SURVEY REPORT DOCUMENTING THE WIDENING AND ASSOCIATED IMPROVEMENTS ON INTERSTATE 215 (I-215) FROM INTERSTATE 10 (I-10)NORTH TO STATE ROUTE 30 (SR-30), CITY OF SAN BERNARDINO, SAN BERNARDINO COUNTY, CALIFORNIA. HEART. SUBMITTED TO MYRA L. FRANK & ASSOCIATES. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 05/20/1992 Cataloged by: WRO-CA-03 on 05/20/1992
Keywords: PREHISTORIC (1), HISTORIC (1), ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), NO RESOURCES (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), USGS SAN BERNARDINO NORTH 7.5' QUAD (4), 91-5.4 (7)

Document No.: 1062425 Unpublished Report
HATHEWAY, ROGER G. AND ANNE Q. DUFFIELD-STOLL

1991 DETERMINATION OF ELIGIBILITY REPORT AND AN ARCHAEOLOGICAL SURVEY FOR A PROPOSED COMMERCIAL DEVELOPMENT LOCATED AT THE SOUTHWEST CORNER OF 6TH AND "D" STREETS, CITY OF SAN BERNARDINO, CA. HATHEWAY & ASSOCIATES. SUBMITTED TO AUTOMOBILE CLUB OF SOUTHERN CALIFORNIA. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 05/20/1992 Cataloged by: WRO-CA-03 on 05/20/1992
Keywords: HISTORIC (1), ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), CULTURAL HISTORY (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), NO RESOURCES (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), 91-6.2 (7)

Document No.: 1062436 Unpublished Report
MARMOR, JASON, PHILLIP L. WALKER, AND CARL LIPO

1991 PHASE II ARCHAEOLOGICAL INVESTIGATION AND REMOVAL OF HUMAN BURIALS FROM AN HISTORIC CEMETERY IN SECCOMBE LAKE PARK, SAN BERNARDINO, CALIFORNIA. LSA ASSOCIATES. SUBMITTED TO CITY OF SAN BERNARDINO. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 05/20/1992 Cataloged by: WRO-CA-03 on 05/20/1992
Keywords: HISTORIC (1), ARCHAEOLOGICAL EXCAVATION REPORT (1), CEMETERY (1), BURIALS (1), OSTEOLOGICAL ANALYSIS (1), MATERIAL CULTURE STUDY (1), MORMON (1), WOODEN COFFINS (3), CERAMIC BUTTONS (3), GLASS BEADS (3), CERAMIC BEADS (3), BONE BUTTONS (3), METAL MUTTONS (3), SHELL BUTTONS (3), METAL TACKS (3), METAL FINGER RINGS (3), METAL CLOTHING FASTENERS (3), CLOTH (3), METAL COIN - SPANISH (3), METAL COFFIN FURNITURE (3), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), CA-SBR-6796H (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), MID-NINETEENTH CENTURY (5), 91-7.3 (7)

Document No.: 1062473 Unpublished Report
HATHEWAY, ROGER G., ANNE Q. DUFFIELD, AND JOHN ROMANI

1991 ARCHAEOLOGICAL TEST EXCAVATION FOR A PROPOSED COMMERCIAL DEVELOPMENT LOCATED AT THE SOUTHWEST CORNER OF 6TH AND "D" STREETS, CITY OF SAN BERNARDINO, CALIFORNIA. HATHEWAY & ASSOCIATES. SUBMITTED TO AUTOMOBILE CLUB OF SOUTHERN CALIFORNIA. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 05/21/1992 Cataloged by: WRO-CA-03 on 05/21/1992
Keywords: HISTORIC (1), ARCHAEOLOGICAL TESTING (1), REFUSE DISPOSAL SITES (1), CERAMICS (3), BRICKS (3), GLASS BOTTLES (3), METAL HARDWARE (3), TINNED CANS (3), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), CA-SBR-7059H (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), 91-11.3 (7)

Document No.: 1062633 Unpublished Report
ALEXANDROWICZ, J.STEPHEN, ANNE DUFFIELD-STOLL, AND SUSAN R. ALEXANDROWICZ

1992 A CULTURAL RESOURCES INVESTIGATION FOR THE PROPOSED EMPIRE BAY DEVELOPMENT, BLOCK 43, CITY OF SAN BERNARDINO, CALIFORNIA. ARCHAEOLOGICAL CONSULTING SERVICES. SUBMITTED TO FAUCHIER GROUP. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 01/14/1993 Cataloged by: WRO-CA-03 on 01/04/1993
Keywords: PREHISTORIC (1), HISTORIC (1), ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), RESIDENTIAL STRUCTURES & SITES (1), COMMERCIAL STRUCTURES & SITES (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), P1074-160H (4), P1074-161H (4), P1074-162H (4), P1074-163H (4), P1074-164H (4), P1074-165H (4), P1074-166H (4), P1074-167H (4), P1074-168H (4), P1074-169H (4), P1074-170H (4), P1074-171H (4), P1074-172H (4), P1074-173H (4), P1074-174H (4), P1074-175H (4), P1074-176H (4), P1074-177H (4), P1074-178H (4), P1074-179H (4), P1074-180H (4), P1074-181H (4), P1074-182H (4), P1074-183H (4), P1074-184H (4), P1074-185H (4), P1074-186H (4), P1074-187H (4), P1074-188H (4), P1074-189H (4), P1074-190H (4), P1074-191H (4), P1074-192H (4), P1074-193H (4), P1074-194H (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), 92-4.3 (7)

Document No.: 1062693 Unpublished Report
ALEXANDROWICZ, J. STEPHEN

1992 MMRP-LETTER REGARDING ARCHITECTURAL DOCUMENTATION OF THE MEDITERRANEAN STYLE GARAGE AT 602 WEST STREET, CITY OF SAN BERNARDINO. ARCHAEOLOGICAL CONSULTING SERVICES. SUBMITTED TO FAUCHIER GROUP. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 01/13/1993 Cataloged by: WRO-CA-03 on 01/13/1993
Keywords: HISTORIC (1), ARCHITECTURAL DOCUMENTATION (1), COMMERCIAL STRUCTURE (1), INTERMONTANE VALLEY (4), SAN BERNARDINO VALLEY (4), P1074-170H (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), 92-11.3 (7)

Document No.: 1062784 Unpublished Report
HALLARAN, KEVIN B. AND CHRISTOPHER FOORD

1991 THE GAGE CANAL (DRAFT COPY OF 2 CHAPTERS OF UNKNOWN PUBLICATION).

K. HALLARAN. SUBMITTED TO UNKNOWN. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 12/29/1993 Cataloged by: WRO-CA-03 on 12/29/1993
Keywords: ARCHITECTURAL DOCUMENTATION (1), WATER TRANSPORTATION SITE (1), CANAL (1), CA-SBR-7168H (4), 20 MILES (4), SANTA ANA RIVER (4), SAN BERNARDINO VALLEY (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), HISTORIC (5), 1885-1889 AD (5)

Document No.: 1062858 Unpublished Report
ALEXANDROWICZ, J. STEPHEN, SUSAN R. ALEXANDROWICZ, AND CARY COTTERMAN

1993 HISTORIC PRESERVATION INVESTIGATIONS FOR THE CENTRAL POLICE FACILITY, BLOCK 52, CITY OF SAN BERNARDINO, CA: THE ARCHIVAL RESEARCH PROGRAM. ARCHAEOLOGICAL CONSULTING SERVICES. SUBMITTED TO CITY OF SAN BERNARDINO. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 04/20/1994 Cataloged by: WRO-CA-03 on 04/20/1994
Keywords: ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), RESIDENTIAL SITE (1), CHURCH (1), ARCHIVAL STUDY (1), ORAL HISTORY INTERVIEW (1), SAN BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), 7.8 ACRES (4), CA-SBR-7820H (4), CA-SBR-7821H (4), CA-SBR-7822H (4), CA-SBR-7816H (4), CA-SBR-7817H (4), CA-SBR-7818H (4), CA-SBR-7819H (4), CA-SBR-7823H (4), CA-SBR-7824H (4), CA-SBR-7825H (4), CA-SBR-7826H (4), CA-SBR-7827H (4), CA-SBR-7828H (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), HISTORIC (5), 1870-1950 A.D. (5)

Document No.: 1062873 Unpublished Report
ALEXANDROWICZ, J.S., EDWARD KNELL, SUSAN R. ALEXANDROWICZ, AND ARTHRU KUHNER

1994 HISTORICAL ARCHAEOLOGICAL MONITORING AT THE SOUTHEAST CORNER OF 5TH AND E STREETS, CITY OF SAN BERNARDINO, COUNTY OF SAN BERNARDINO, CA. ARCHAEOLOGICAL CONSULTING SERVICES. SUBMITTED TO CITY OF SAN BERNARDINO. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 07/05/1994 Cataloged by: WRO-CA-03 on 07/05/1994
Keywords: ARCHAEOLOGICAL MONITORING REPORT (1), COMMERCIAL SITE (1), RESIDENTIAL SITE (1), WALL (1), BRICK (3), GLASS (3), NAILS (3), CERAMICS (3), WOOD (3), CONCRETE (3), PLASTER (3), METAL (3), FLORAL REMAINS (3), FAUNAL REMAINS (3), PAPER (3), LINOLEUM (3), 1 ACRE (4), SAN BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), CA-SBR-7842H (4), P1074-38H (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), HISTORIC (5)

Document No.: 1062889 Unpublished Report
WLODARSKI, ROBERT J.

1993 AN ARCHAEOLOGICAL SURVEY REPORT DOCUMENTING THE EFFECTS OF THE RCTC I-15 IMPROVEMENT PROJECT IN MORENO VALLEY, RIVERSIDE COUNTY TO ORANGE SHOW ROAD IN THE CITY OF SAN BERNARDINO, SAN BERNARDINO COUNTY, CALIFORNIA. H.E.A.R.T. SUBMITTED TO MYRA L. FRANK AND ASSOCIATES, INC. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 10/06/1994 Cataloged by: WRO-CA-03 on 10/06/1994
Keywords: ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), WATER TRANSPORTATION

SITE (1), CANAL (1), INTERMONTAINE VALLEY (4), SAN BERNARDINO VALLEY (4), CA-SBR-7168H (4), CA-SBR-7169H (4), CA-SBR-7172H (4), CPHI-SBR-021 (4), P1074-84H (4), P1074-86H (4), P1074-117H (4), P1074-88H (4), P1074-89H (4), P1074-90H (4), P1074-115H (4), P1074-116H (4), P1074-81H (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), HISTORIC (5)

Document No.: 1062943 Unpublished Report
TEARNEN, JANET

1994 HISTORICAL ASSESSMENT: 514 & 524 N. ARROWHEAD AVE., SAN BERNARDINO, CA. MAIN STREET CONSULTANTS. SUBMITTED TO CITY OF SAN BERNARDINO\. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 11/02/1994 Cataloged by: WRO-CA-03 on 11/02/1994
Keywords: HISTORICAL STRUCTURE EVALUATION REPORT (1), RESIDENTIAL SITE (1), 0.75 ACRES (4), SAN BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), CA-SBR-8061H (4), CA-SBR-8062H (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), HISTORIC (5), AD 1906 (5), AD 1918 (5), HISTORIC STRUCTURE (6)

Document No.: 1062962 Unpublished Report
ALEXANDROWICZ, J. STEPHEN, SUSAN R. ALEXANDROWICZ, EDWARD KNELL, AND ARTHUR KUHNER

1994 HISTORIC PRESERVATION INVESTIGATIONS AT LOTS 3 & 4, BLOCK 29, CITY OF SAN BERNARDINO, COUNTY OF SAN BERNARDINO, CA: THE MONITORING PROGRAM. ARCHAEOLOGICAL CONSULTING SERVICES. SUBMITTED TO CITY OF SAN BERNARDINO. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 02/08/1995 Cataloged by: WRO-CA-03 on 02/08/1995
Keywords: ARCHAEOLOGICAL MONITORING REPORT (1), COMMERCIAL SITE (1), RESIDENTIAL SITE (1), CERAMICS (3), GLASS (3), GLASS BOTTLE (3), METAL (3), SHELL (3), BUTTON (3), JEWELRY (3), BRICK (3), WOOD (3), CONCRETE (3), NAILS (3), METAL HARDWARE (3), LINOLEUM (3), ASPHALT (3), AUTOMOBILE PARTS (3), WIRE (3), CHARCOAL (3), FAUNAL REMAINS (3), FLORAL REMAINS (3), SEEDS (3), SLAG (3), COAL (3), CANS (3), TOYS (3), BULLET (3), PENNY (3), PIPE (3), PLASTER (3), RUBBER (3), POST HOLES (3), HORSESHOES (3), KNIFE (3), GLASS INSULATOR (3), 1.5 ACRES (4), SAN BERNARDINO VALLEY (3), INTERMONTANE VALLEY (4), CA-SBR-7975H (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), HISTORIC (5), AD 1880-1950 (5)

Document No.: 1062964 Unpublished Report
HATHEWAY, ROGER

1994 DETERMINATION OF ELIGIBILITY REPORT FOR VALLEY AUTO SUPPLY, 441 W. 5TH ST., SAN BERNARDINO, CA. HATHEWAY & ASSOCIATES. SUBMITTED TO CITY OF SAN BERNARDINO. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 03/14/2008 Cataloged by: WRO-CA-03 on 02/08/1995
Keywords: HISTORIC STRUCTURE EVALUATION REPORT (1), COMMERCIAL SITE (1), 0.5 ACRES (4), SAN BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), 36-013925H (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), HISTORIC (5), AD 1939 (5), AD 1954 (5), AD 1924 (5), HISTORIC STRUCTURE (6)

Document No.: 1062971 Unpublished Report

MLAZOVSKY, MARILYN

1993 LYTLE CREEK SHOOTING AREA. M. MLAZOVSKY. SUBMITTED TO FOREST SERVICE. CONTRACT NO. 05-12-CA-78. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 02/08/1995 Cataloged by: WRO-CA-03 on 02/08/1995
Keywords: ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), 40 ACRES (4), SAN GABRIEL MOUNTAINS (4), TRANSVERSE RANGES (4), LYTLE CREEK (4), NO RESOURCES (4), USGS TELEGRAPH PEAK 7.5' QUAD (4)

Document No.: 1063224 Unpublished Report
ROSENTHAL, JANE

1996 L.A. CELLULAR SITE 782.4. PETRA RESOURCES, INC. SUBMITTED TO ESA. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 06/24/1998 Cataloged by: WRO-CA-03 on 06/24/1998
Keywords: ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), <1 ACRE (4), SAN BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), NO RESOURCES (4), USGS SAN BERNARDINO SOUTH 7.5' SOUTH (4)

Document No.: 1063228 Unpublished Report
LERCH, MICHAEL K.

1995 HISTORIC PROPERTY SURVEY REPORT: ORANGE SHOW ROAD EXTENSION, CITY OF SAN BERNARDINO, CA. 100PP. TOM DODSON & ASSOCIATES. SUBMITTED TO CITY OF SAN BERNARDINO. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 06/24/1998 Cataloged by: WRO-CA-03 on 06/24/1998
Keywords: ARCHAELOGICAL RECONNAISSANCE REPORT (1), HISTORIC (1), CANAL (1), RAILROAD SITE (1), RESIDENTIAL SITES (1), APPROX 2 MILES (4), SAN BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), CA-SBR-6103H (4), CA-SBR-7168H (4), P1074-85H (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), AD 1938 (5), AD 1942 (5), HISTORIC STRUCTURES (6)

Document No.: 1063452 Unpublished Report
LOVE, BRUCE AND BAI "TOM" TANG

1998 HISTORIC SIGNIFICANCE EVALUATION OF SEVEN GROUPS OF BUILDINGS TO BE DEMOLISHED DURING MAYOR'S DEMOLITION INITIATIVE, CITY OF SAN BERNARDINO,CA. 14PP. CRM TECH. SUBMITTED TO CITY OF SAN BERNARDINO. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 12/04/2001 Cataloged by: WRO-CA-03 on 12/04/2001
Keywords: HISTORIC STRUCTURE EVALUATION (1), HISTORIC (1), HOUSE (1), CARPORT (1), WALL (1), LANDSCAPING (1), APARTMENT BUILDING (1), FENCE (1), MOTEL (1), MILITARY SITE (1), QUONSET HUT (1), VEHICLE MAINTAINANCE BUILDING (1), STORAGE SHED (1), SPANISH ECLECTIC (2), <50 ACRES (4), SAN BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), USGS SAN BERNARDINO NORTH 7.5' QUAD (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), AD 1920 (5), AD 1947 (5), AD 1921 (5), AD 1950 (5), AD 1945 (5), AD 1926 (5)

Document No.: 1063933 Unpublished Report
LAPIN, PHILIPPE

2000 CULTURAL RESOURCE ASSESSMENT FOR PACIFIC BELL MOBILE SERVICES FACILITY CM 362-12, COUNTY OF SAN BERNARDINO, CA. 4PP. LSA. SUBMITTED TO PBMS. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 06/13/2005 Cataloged by: WRO-CA-03 on 06/13/2005
Keywords: LITERATURE REVIEW (1), SAN BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), NO SURVEY (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4)

Document No.: 1063934 Unpublished Report
LOVE, BRUCE AND BAI TANG

2000 SUMMARY OF HISTORICAL RESOURCES SURVEY: LAKES & STREAMS PROJECT (VISION 20/20), CITY OF SAN BERNARDINO, SAN BERNARDINO COUNTY, CA. 33PP. CRM TECH. SUBMITTED TO SAN BERNARDINO REGIONAL WATER RESOURCES AUTHORITY. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 06/13/2005 Cataloged by: WRO-CA-03 on 06/13/2005
Keywords: ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), ARCHITECTURAL SURVEY REPORT (1), RESIDENCES (1), MONUMENT (1), CEMETERY (1), COMMERCIAL STRUCTURES (1), CHURCH (1), THEATER (1), HOSPITAL (1), APARTMENTS (1), QUEEN ANNE (2), NEOCLASSICAL (2), TUDOR (2), SPANISH ECLECTIC (2), CRAFTSMAN BUNGALOW (2), FOLK VICTORIAN (2), MINIMAL TRADITIONAL (2), JEWISH (2), SPANISH BAROQUE (2), STREAMLINE MODERNE (2), ITALIANATE (2), COLONIAL REVIVAL (2), ART DECO (2), VICTORIAN (2), GOTHIC REVIVAL (2), STICK (2), 1.2 SQUARE MILES (4), SAN BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4)

Document No.: 1063936 Unpublished Report
LOVE, BRUCE AND BAI TANG

2000 HISTORICAL RESOURCES EVALUATION REPORT: 535-545 N. E ST, IN THE DOWNTOWN AREA OF THE CITY OF SAN BERNARDINO, SAN BERNARDINO COUNTY, CA. 15PP. CRM TECH. SUBMITTED TO CITY OF SAN BERNARDINO. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 06/13/2005 Cataloged by: WRO-CA-03 on 06/13/2005
Keywords: ARCHITECTURAL EVALUATION REPORT (1), HISTORIC (1), APARTMENT BUILDING (1), SPANISH ECLECTIC (2), 2 ACRES (4), SAN BERNARDINO VALLEY' (4), INTERMONTANE VALLEY (4), CA-SBR-9993H/36-009993 (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), AD 1925 (5)

Document No.: 1063940 Unpublished Report
DUKE, CURT

2004 CULTURAL RESOURCES ASSESSMENT FOR AT&T FIXED WIRELESS SERVICES FACILITY BC_782a, COUNTY OF SAN BERNARDINO, CA. 5PP. SAN BERNARDINO. Submitted to AT&T WIRELESS SERVICES. Unpublished report on file at S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 06/13/2005 Cataloged by: WRO-CA-03 on 06/13/2005
Keywords: ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), 1 ACRE (4), SAN

BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), NO RESOURCES (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4)

Document No.: 1064326 Unpublished Report
BUDINGER, FRED E.

2002 PROPOSED WIRELESS DEVICE MONOPOLE & EQUIPMENT CABINET, WATERMAN SITE N291, 560 WATERMAN AVE, SAN BERNARDINO, CA. 8PP. TETRA TECH. SUBMITTED TO VERIZON WIRELESS. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 07/22/2008 Cataloged by: WRO-CA-03 on 07/22/2008
Keywords: LITERATURE REVIEW (1), NO SURVEY (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4)

Document No.: 1064331 Unpublished Report
WHITE, LAURIE S.

2000 CULTURAL RESOURCES ASSESSMENT FOR AT&T WIRELESS SITE #C962 (BARTON & WATERMAN), CITY OF SAN BERNARDINO, SAN BERNARDINO COUNTY, CA. 5PP. ARCHAEOLOGICAL ASSOCIATES. SUBMITTED TO ESA. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 07/22/2008 Cataloged by: WRO-CA-03 on 07/22/2008
Keywords: ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), <1 ACRE (4), SAN BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), NO RESOURCES (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4)

Document No.: 1064333 Unpublished Report
GOODWIN, RIORDAN AND ROBERT E. REYNOLDS

2002 CULTURAL RESOURCES ASSESSMENT: NEW HIGH SCHOOL, SAN BERNARDINO, CA. 19PP. LSA. SUBMITTED TO SAN BERNARDINO UNIFIED SCHOOL DISTRICT. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 07/22/2008 Cataloged by: WRO-CA-03 on 07/22/2008
Keywords: ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), HISTORIC (1), DITCH (1), 190 ACRES (4), SAN BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), WARM CREEK (4), RESOURCE NOT RECORDED (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4)

Document No.: 1064335 Unpublished Report
GOODWIN, RIORDAN AND ROBERT E. REYNOLDS

2002 CULTURAL RESOURCES ASSESSMENT: HUNTS LANE GRADE SEPARATION, SAN BERNARDINO COUNTY, CA. 24PP. LSA. SUBMITTED TO SANBAG. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 07/22/2008 Cataloged by: WRO-CA-03 on 07/22/2008
Keywords: ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), HISTORIC (1), RAILROAD (1), 20 ACRES (4), SAN BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), CA-SBR-10330H (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4)

Document No.: 1064336 Unpublished Report

WLODARSKI, ROBERT

2002 A PHASE I ARCHAEOLOGICAL STUDY FOR TELECU SENIOR HOUSING, SAN BERNARDINO III, INC, LOCATED AT COMMERCIAL RD, CITY OF SAN BERNARDINO, SAN BERNARDINO COUNTY, CA. 21PP. HEART. SUBMITTED TO TELECU DEVELOPMENT CORPORATION. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 07/22/2008 Cataloged by: WRO-CA-03 on 07/22/2008
Keywords: ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), 10 ACRES (4), SAN BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), NO RESOURCES (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4)

Document No.: 1064347 Unpublished Report
WLODARSKI, ROBERT

2000 A PHASE I +/- ARCHAEOLOGICAL STUDY FOR TELECU SENIOR HOUSEING, SAN BERNARDINO, INC, 602-666 W. 6TH ST, SAN BERNARDINO, CA. 27PP. HEART. SUBMITTED TO TELECU DEVELOPMENT CORPORATION. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 07/22/2008 Cataloged by: WRO-CA-03 on 07/22/2008
Keywords: ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), HISTORIC (1), REFUSE DISPOSAL SITE (1), FOUNDATION (1), LANDSCAPING (1), GARAGE (1), TELEPHONE POLE (1), BRICK (3), TILE (3), WOOD (3), SEWER PIPE (3), CLOTHESLINE (3), METAL (3), BONE (3), CERAMICS (3), MEDICINE BOTTLE (3), CERAMIC INSULATOR (3), <10 ACRES (4), SAN BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), CA-SBR-10881H (4), USGS SAN BERNARDINO SOUTH 7.5' QUAD (4), AD 1870'S (5)

Document No.: 1064349 Unpublished Report
BUDINGER, FRED E.

2002 A CULTURAL RESOURCES CONSTRUCTION MONITORING REPORT IN SUPPORT OF THE SECTION 106 HISTORIC PRESERVATION REVIEW OF THE VERIZON WIRELESS WATERMAN SITE, 544 N. WATERMAN AVE, SAN BERNARDINO, SAN BERNARDINO COUNTY, CA. 38PP. TETRA TECH. SUBMITTED TO VERIZON WIRELESS. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 07/22/2008 Cataloged by: WRO-CA-03 on 07/22/2008
Keywords: ARCHAEOLOGICAL MONITORING REPORT (1), 1 ACRE (4), SAN BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), NO RESOURCES (4), USGS SAN BERNARDINO

APPENDIX E5

CULTURAL RESOURCES RECORDED IN THE SEVEN REDEVELOPMENT AREAS AT THE SAN BERNARDINO ARCHAEOLOGICAL INFORMATION CENTER, SAN BERNARDINO COUNTY MUSEUM, REDLANDS

CULTURAL RESOURCES RECORDED IN THE SEVEN REDEVELOPMENT AREAS AT THE SAN BERNARDINO ARCHAEOLOGICAL INFORMATION CENTER, SAN BERNARDINO COUNTY MUSEUM, REDLANDS

RESOURCES (P36-) (Total of 125)

01419 (Prehistoric)
02999 (Multi-component)
04191
04288
05554
06099
06103
06106
06796
06847
07059
07168
07816
07817
07818
07819
07820
07821
07822
07823
07824
07825
07826
07827
07828
07841
07842
07975
08061
08062
08070
08071
09993
10399
10400
10820
10881
12850
12869
12870
12916
13309
13310
15222
16417
17662
17665
17693
17733
17744
17760 - MISSING
17767
17769
17770
17797
17818
17857
17858
17860
17902
17926 - MISSING
17976
17980
17985
17987
17988
17989
17990
17991
18000
18043
18044
18045
18046
18047
18048
18052
18053
18054
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20538
20539
20540
20541
20542
20543
20673
20805
20806
20807
20825

PENDING HISTORIC RESOURCES (P1074-) (Total of 59)

9H
10H
11H
12H
13H
15H
36H
37H
43H
44H
46H
MISSING
49H
51H
52H
58H
84H
85H
89H
90H
92H
97H
118H
122H
128H
160H
161H
162H
163H
164H
165H
166H
167H
168H
169H
170H
171H
172H
173H
174H
175H
176H
177H
178H
179H
180H
181H
182H
183H
184H
185H
186H
187H
188H
189H
190H
191H
192H
193H
194H

APPENDIX F1

TRAFFIC APPENDIX A – TRIP GENERATION BY PROJECT AREA

San Bernardino Redevelopment Project Area Merger
Trip Generation Summary

District Name	AM PEAK HOUR			PM PEAK HOUR			ADT
	IN	OUT	TOTAL	IN	OUT	TOTAL	
VACANT LAND ANALYSIS	3,145	1,454	4,599	3,160	4,345	7,505	107,325
CAROUSEL MALL REDEVELOPMENT PROJECT	1,576	724	2,300	1,159	1,765	2,924	36,538
HERITAGE SQUARE	18	12	30	36	38	74	1,250
REDEVELOPMENT OF FORMER MILITARY FACILITIES	55	35	90	109	113	222	3,751
SECCOMBE LAKE VILLAGE	44	71	115	93	77	170	2,506
ARROWHEAD CREDIT UNION HEADQUARTERS CAMPUS	273	46	319	78	266	344	3,071
THEATER DISTRICT IMPLEMENTATION	15	10	25	30	32	62	1,042
INTERMODAL STATION AND TRANSIT ORIENTED DEVELOPMENT	669	175	843	237	629	866	7,994
Total Forecast Trip Generation	**5,795**	**2,527**	**8,321**	**4,902**	**7,265**	**12,167**	**163,477**

VACANT LAND ANALYSIS

Land Use (*ITE* Code)		Quantity	AM - *ITE* 8th Edition			PM - ITE 8th Edition			ADT
			IN	OUT	TOTAL	IN	OUT	TOTAL	
Light Industrial (110)	Rate	tsf	0.81	0.11	0.92	0.12	0.85	0.97	6.97
	Generation	518.916	420	57	477	62	441	503	3,617
Apartment (220)	Rate	du	0.10	0.41	0.51	0.40	0.22	0.62	6.65
	Generation	788.000	79	323	402	315	173	488	5,240
Internal Trip Capture Reduction (7% PM; 7% Daily)			N/A	N/A	N/A	-22	-12	-34	-367
Subtotal - Apartment (220)			**79**	**323**	**402**	**293**	**161**	**454**	**4,873**
General Office Building (710)	Rate	tsf	1.36	0.19	1.55	0.25	1.24	1.49	11.01
	Generation	909.780	1,237	173	1410	227	1,128	1355	10,017
Internal Trip Capture Reduction (7% PM; 7% Daily)			N/A	N/A	N/A	-16	-79	-95	-701
Subtotal - General Office (710)			**1,237**	**173**	**1,410**	**211**	**1,049**	**1,260**	**9,316**
Shopping Center (820)	Rate	tsf	0.61	0.39	1.00	1.83	1.90	3.73	42.94
	Generation	2309.894	1,409	901	2310	4,227	4,389	8616	99,187
Internal Trip Capture Reduction (7% PM; 7% Daily)			N/A	N/A	N/A	-296	-307	-603	-6943
Sub-Subtotal - Shopping Center			1,409	901	2,310	3,931	4,082	8,013	92,244
Pass-By Reduction (34%) (820)			N/A	N/A	N/A	-1,337	-1,388	-2,725	-2,725
Subtotal - Shopping Center (820)			**1,409**	**901**	**2,310**	**2,594**	**2,694**	**5,288**	**89,519**
Total Forecast Trip Generation			**3,145**	**1,454**	**4,599**	**3,160**	**4,345**	**7,505**	**107,325**

Source: ***ITE Trip Generation (8th Edition, 2008)***
Source: Pass-By Reduction - ***ITE Trip Generation Handbook, 2nd Edition, 2004***
Notes: du = dwelling units; tsf = thousand square feet.

CAROUSEL MALL REDEVELOPMENT PROJECT

Land Use (*ITE* Code)		Quantity	AM - *ITE* 8th Edition			PM - ITE 8th Edition			ADT
			IN	OUT	TOTAL	IN	OUT	TOTAL	
Apartment (220)	Rate	du	0.10	0.41	0.51	0.40	0.22	0.62	6.65
	Generation	750.000	**75**	**308**	**383**	**300**	**165**	**465**	**4,988**
Internal Trip Capture Reduction (12% PM; 13% Daily)			N/A	N/A	N/A	-36	-20	-56	-648
Subtotal - Apartment (220)			**75**	**308**	**383**	**264**	**145**	**409**	**4,340**
General Office Building (710)	Rate	tsf	1.36	0.19	1.55	0.25	1.24	1.49	11.01
	Generation	800.000	1,088	152	1240	200	992	1192	8,808
Internal Trip Capture Reduction (12% PM; 13% Daily)			N/A	N/A	N/A	-24	-119	-143	-1145
Subtotal - General Office (710)			**1,088**	**152**	**1,240**	**176**	**873**	**1,049**	**7,663**
Shopping Center (820)	Rate	tsf	0.61	0.39	1.00	1.83	1.90	3.73	42.94
	Generation	677.000	413	264	677	1,239	1,286	2525	29,070
Internal Trip Capture Reduction (12% PM; 13% Daily)			N/A	N/A	N/A	-149	-154	-303	-3779
Sub-Subtotal - Shopping Center			413	264	677	1,090	1,132	2,222	25,291
Pass-By Reduction (34%) (820)			N/A	N/A	N/A	-371	-385	-756	-756
Subtotal - Shopping Center (820)			**413**	**264**	**677**	**719**	**747**	**1,466**	**24,535**
Total Forecast Trip Generation			**1,576**	**724**	**2,300**	**1,159**	**1,765**	**2,924**	**36,538**

Source: *ITE Trip Generation (8th Edition, 2008)*
Source: Pass-By Reduction - *ITE Trip Generation Handbook, 2nd Edition, 2004*
Notes: du = dwelling units; tsf = thousand square feet.

HERITAGE SQUARE

Land Use (*ITE* Code)		Quantity	AM - *ITE* 8th Edition			PM - ITE 8th Edition			ADT
			IN	OUT	TOTAL	IN	OUT	TOTAL	
Shopping Center (820)	Rate	tsf	0.61	0.39	1.00	1.83	1.90	3.73	42.94
	Generation	30.000	18	12	30	55	57	112	1,288
Pass-By Reduction (34%) (820)			N/A	N/A	N/A				
						-19	-19	-38	-38
NET SHOPPING CENTER TRIPS (820)			18	12	30	36	38	74	1,250
Total Forecast Trip Generation			**18**	**12**	**30**	**36**	**38**	**74**	**1,250**

Source: ***ITE Trip Generation (8th Edition, 2008)***
Source: Pass-By Reduction - ***ITE Trip Generation Handbook, 2nd Edition, 2004***
Notes: tsf = thousand square feet.

REDEVELOPMENT OF FORMER MILITARY FACILITIES

Land Use (*ITE* Code)		Quantity	AM - *ITE* 8th Edition			PM - ITE 8th Edition			
			IN	OUT	TOTAL	IN	OUT	TOTAL	ADT
Shopping Center (820)	Rate	tsf	0.61	0.39	1.00	1.83	1.90	3.73	42.94
	Generation	90.000	55	35	90	165	171	336	3,865
Pass-By Reduction (34%) (820)			N/A	N/A	N/A				
						-56	-58	-114	-114
NET SHOPPING CENTER TRIPS (820)			55	35	90	109	113	222	3,751
Total Forecast Trip Generation			**55**	**35**	**90**	**109**	**113**	**222**	**3,751**

Source: ***ITE Trip Generation (8th Edition, 2008)***
Source: Pass-By Reduction - ***ITE Trip Generation Handbook, 2nd Edition, 2004***
Notes: tsf = thousand square feet.

SECCOMBE LAKE VILLAGE

Land Use (*ITE* Code)		Quantity	AM - *ITE* 8th Edition			PM - ITE 8th Edition			ADT
			IN	OUT	TOTAL	IN	OUT	TOTAL	
Apartment (220)	Rate	du	0.10	0.41	0.51	0.40	0.22	0.62	6.65
	Generation	125.000	13	51	64	50	28	78	831
Internal Trip Capture Reduction (15% PM; 14% Daily)			N/A	N/A	N/A	-8	-4	-12	-116
Subtotal - Apartment (220)			**13**	**51**	**64**	**42**	**24**	**66**	**715**
Shopping Center (820)	Rate	tsf	0.61	0.39	1.00	1.83	1.90	3.73	42.94
	Generation	50.000	31	20	51	92	95	187	2,147
Internal Trip Capture Reduction (15% PM; 14% Daily)			N/A	N/A	N/A	-14	-14	-28	-301
Sub-Subtotal - Shopping Center			31	20	51	78	81	159	1,846
Pass-By Reduction (34%) (820)			N/A	N/A	N/A	-27	-28	-55	-55
Subtotal - Shopping Center (820)			**31**	**20**	**51**	**51**	**53**	**104**	**1,791**
Total Forecast Trip Generation			**44**	**71**	**115**	**93**	**77**	**170**	**2,506**

Source: ***ITE Trip Generation (8th Edition, 2008)***
Source: Pass-By Reduction - ***ITE Trip Generation Handbook, 2nd Edition, 2004***
Notes: du = dwelling units; tsf = thousand square feet.

ARROWHEAD CREDIT UNION HEADQUARTERS CAMPUS

Land Use (*ITE* Code)		Quantity	AM - *ITE* 8th Edition			PM - ITE 8th Edition			ADT
			IN	OUT	TOTAL	IN	OUT	TOTAL	
General Office Building (710)	Rate	tsf	1.36	0.19	1.55	0.25	1.24	1.49	11.01
	Generation	190.000	258	36	294	48	236	284	2,092
Internal Trip Capture Reduction (1% PM; 2% Daily)			N/A	N/A	N/A	0	-2	-2	-42
Subtotal - General Office (710)			**258**	**36**	**294**	**48**	**234**	**282**	**2,050**
Shopping Center (820)	Rate	tsf	0.61	0.39	1.00	1.83	1.90	3.73	42.94
	Generation	25.000	15	10	25	46	48	94	1,074
Internal Trip Capture Reduction (1% PM; 2% Daily)			N/A	N/A	N/A	0	0	0	-21
Sub-Subtotal - Shopping Center			15	10	25	46	48	94	1,053
Pass-By Reduction (34%) (820)			N/A	N/A	N/A	-16	-16	-32	-32
Subtotal - Shopping Center (820)			**15**	**10**	**25**	**30**	**32**	**62**	**1,021**
Total Forecast Trip Generation			**273**	**46**	**319**	**78**	**266**	**344**	**3,071**

Source: ***ITE Trip Generation (8th Edition, 2008)***
Source: Pass-By Reduction - ***ITE Trip Generation Handbook, 2nd Edition, 2004***
Notes: tsf = thousand square feet.

THEATER DISTRICT IMPLEMENTATION

Land Use (*ITE* Code)		Quantity	AM - *ITE* 8th Edition			PM - ITE 8th Edition			ADT
			IN	OUT	TOTAL	IN	OUT	TOTAL	
Shopping Center (820)	Rate	tsf	0.61	0.39	1.00	1.83	1.90	3.73	42.94
	Generation	25.000	15	10	25	46	48	94	1,074
Pass-By Reduction (34%) (820)			N/A	N/A	N/A				
						-16	-16	-32	-32
NET SHOPPING CENTER TRIPS (820)			15	10	25	30	32	62	1,042
Total Forecast Trip Generation			**15**	**10**	**25**	**30**	**32**	**62**	**1,042**

Source: ***ITE Trip Generation (8th Edition, 2008)***

Source: Pass-By Reduction - ***ITE Trip Generation Handbook, 2nd Edition, 2004***

Notes: du = dwelling units; tsf = thousand square feet; vfp = vehicle fueling positions.

INTERMODAL STATION AND TRANSIT ORIENTED DEVELOPMENT

Land Use (*ITE* Code)		Quantity	AM - *ITE* 8th Edition			PM - ITE 8th Edition			ADT
			IN	OUT	TOTAL	IN	OUT	TOTAL	
Apartment (220)	Rate	du	0.10	0.41	0.51	0.40	0.22	0.62	6.65
	Generation	170.000	17	70	87	68	37	105	1,131
Internal Trip Capture Reduction (7% PM; 9% Daily)			N/A	N/A	N/A	-5	-3	-8	-102
Subtotal - Apartment (220)			**17**	**70**	**87**	**63**	**34**	**97**	**1,029**
General Office Building (710)	Rate	tsf	1.36	0.19	1.55	0.25	1.24	1.49	11.01
	Generation	500.000	680	95	775	125	620	745	5,505
Internal Trip Capture Reduction (7% PM; 9% Daily)			N/A	N/A	N/A	-9	-43	-52	-495
Subtotal - General Office (710)			**680**	**95**	**775**	**116**	**577**	**693**	**5,010**
Shopping Center (820)	Rate	tsf	0.61	0.39	1.00	1.83	1.90	3.73	42.94
	Generation	75.000	46	29	75	137	143	280	3,221
Internal Trip Capture Reduction (7% PM; 9% Daily)			N/A	N/A	N/A	-10	-10	-20	-290
Sub-Subtotal - Shopping Center			46	29	75	127	133	260	2,931
Pass-By Reduction (34%) (820)			N/A	N/A	N/A	-43	-45	-88	-88
Subtotal - Shopping Center (820)			**46**	**29**	**75**	**84**	**88**	**172**	**2,843**
Transit Oriented Development Reduction (10%)			-74	-19	-94	-26	-70	-96	-888
Total Forecast Trip Generation			**669**	**175**	**843**	**237**	**629**	**866**	**7,994**

Source: ***ITE Trip Generation (8th Edition, 2008)***
Source: Pass-By Reduction - ***ITE Trip Generation Handbook, 2nd Edition, 2004***
Notes: du = dwelling units; tsf = thousand square feet.

APPENDIX F2

TRAFFIC APPENDIX B – INTERNAL TRIP CAPTURE WORKSHEETS

Multi-Use Development Trip Generation and Internal Capture Summary

Analyst: Phillip

Date: 3/2/2010

Time Period: PM Peak Hour

Land Use A Shopping Center

ITE LU Code	820
Size	2309.894 TSF

	Total	*Internal*	*External*
Enter	4,227	177	4,050
Exit	4,389	168	4,221
Total	8,616	345	8,271
%	100%	4%	96%

Exit to External **4,221**

4,050 *Enter from External*

3% 132 *Demand*

70 *Balanced*

31% 70 *Demand*

2% 85 *Demand*

85 *Balanced*

23% 259 *Demand*

12% 527 *Demand*

98 *Balanced*

31% 98 *Demand*

9% 380 *Demand*

92 *Balanced*

53% 92 *Demand*

Land Use B General Office

ITE LU Code	710
Size	909.78 TSF

	Total	*Internal*	*External*
Enter	227	70	157
Exit	1,128	91	1,037
Total	1,355	161	1,194
%	100%	12%	88%

Exit to External **1,037**

157 *Enter from External*

Demand 0% 0

0 *Balanced*

Demand 0% 0

2% 23 *Demand*

6 *Balanced*

2% 6 *Demand*

Land Use C Residential

ITE LU Code	220
Size	788 DU

	Total	*Internal*	*External*
Enter	315	104	211
Exit	173	92	81
Total	488	196	292
%	100%	40%	60%

Enter from External **211**

81 *Exit to External*

Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Total	Internal Capture
Enter	**4,050**	**157**	**211**	**4,418**	**7%**
Exit	**4,221**	**1,037**	**81**	**5,339**	
Total	**8,271**	**1,194**	**292**	**9,757**	
Single-Use Trip Gen. Est.	**8,616**	**1,355**	**488**	**10,459**	

VACANT LAND ANALYSIS

RBF CONSULTING

H:\pdata\65100614\Technical Studies\Traffic\Admin\Internal Trip Capture\[01-Vacant Land ITC - PM.xls]Output

Multi-Use Development Trip Generation and Internal Capture Summary

Analyst: Phillip

Date: 3/2/2010

Time Period: Daily

Land Use A Shopping Center

ITE LU Code	820
Size	2309.894 TSF

	Total	Internal	External
Enter	49,594	2,098	47,496
Exit	49,594	1,616	47,978
Total	99,188	3,714	95,474
%	100%	4%	96%

Exit to External **47,978**

47,496 *Enter from External*

3% 1,488 *Demand*

4% 1,984 *Demand*

11% 5,455 *Demand*

9% 4,463 *Demand*

751 *Balanced*

1,102 *Balanced*

865 *Balanced*

996 *Balanced*

15% 751 *Demand*

22% 1,102 *Demand*

33% 865 *Demand*

38% 996 *Demand*

Land Use B General Office

ITE LU Code	710
Size	909.78 TSF

	Total	Internal	External
Enter	5,009	751	4,258
Exit	5,009	1,181	3,828
Total	10,018	1,932	8,086
%	100%	19%	81%

Exit to External **3,828**

4,258 *Enter from External*

Demand 0% 0 — *Balanced* **0** — *Demand* 0% 0

2% 100 *Demand* — **79** *Balanced* — 3% 79 *Demand*

Land Use C Residential

ITE LU Code	220
Size	788 DU

	Total	Internal	External
Enter	2,620	944	1,676
Exit	2,620	996	1,624
Total	5,240	1,940	3,300
%	100%	37%	63%

Enter from External **1,676**

1,624 *Exit to External*

Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Total	Internal Capture
Enter	**47,496**	**4,258**	**1,676**	**53,430**	**7%**
Exit	**47,978**	**3,828**	**1,624**	**53,430**	
Total	**95,474**	**8,086**	**3,300**	**106,860**	
Single-Use Trip Gen. Est.	**99,188**	**10,018**	**5,240**	**114,446**	

VACANT LAND ANALYSIS

RBF CONSULTING

H:\pdata\65100614\Technical Studies\Traffic\Admin\Internal Trip Capture\[02-Vacant Land ITC - Daily.xls]Output

Multi-Use Development Trip Generation and Internal Capture Summary

Analyst: Phillip

Date: 5/10/2010

Time Period: PM Peak Hour

Land Use A Shopping Center

ITE LU Code	820
Size	677 TSF

	Total	Internal	External
Enter	1,239	112	1,127
Exit	1,286	132	1,154
Total	2,525	244	2,281
%	100%	10%	90%

Exit to External: 1,154

Enter from External: 1,127

3% 39 Demand → 39 Balanced → 31% 62 Demand

2% 25 Demand → 25 Balanced → 23% 228 Demand

12% 154 Demand → 93 Balanced → 31% 93 Demand

9% 112 Demand → 87 Balanced → 53% 87 Demand

Land Use B General Office

ITE LU Code	710
Size	800 TSF

	Total	Internal	External
Enter	200	39	161
Exit	992	31	961
Total	1,192	70	1,122
%	100%	6%	94%

Exit to External: 961

Enter from External: 161

Land Use C Residential

ITE LU Code	220
Size	750 DU

	Total	Internal	External
Enter	300	99	201
Exit	165	87	78
Total	465	186	279
%	100%	40%	60%

Enter from External: 201

Exit to External: 78

Demand 0% 0 → Balanced 0 → Demand 0% 0

Demand 2% 20 → Balanced 6 → Demand 2% 6

Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Total	Internal Capture
Enter	1,127	161	201	1,489	12%
Exit	1,154	961	78	2,193	
Total	2,281	1,122	279	3,682	
Single-Use Trip Gen. Est.	2,525	1,192	465	4,182	

CAROUSEL MALL REDEVELOPMENT PROJECT

RBF CONSULTING

H:\pdata\65100614\Technical Studies\Traffic\Admin\Internal Trip Capture\[03-Carousel Mall ITC - PM.xls]Output

Multi-Use Development Trip Generation and Internal Capture Summary

Analyst: Phillip

Date: 5/10/2010

Time Period: Daily

Land Use A Shopping Center

ITE LU Code	820
Size	677 TSF

	Total	Internal	External
Enter	14,535	1,529	13,006
Exit	14,535	1,259	13,276
Total	29,070	2,788	26,282
%	100%	10%	90%

Exit to External: 13,276

Enter from External: 13,006

3% 436 Demand	4% 581 Demand	11% 1,599 Demand	9% 1,308 Demand
436 Balanced	581 Balanced	823 Balanced	948 Balanced
15% 661 Demand	22% 969 Demand	33% 823 Demand	38% 948 Demand

Land Use B General Office

ITE LU Code	710
Size	800 TSF

	Total	Internal	External
Enter	4,404	436	3,968
Exit	4,404	656	3,748
Total	8,808	1,092	7,716
%	100%	12%	88%

Exit to External: 3,748

Enter from External: 3,968

Land Use C Residential

ITE LU Code	220
Size	750 DU

	Total	Internal	External
Enter	2,494	898	1,596
Exit	2,494	948	1,546
Total	4,988	1,846	3,142
%	100%	37%	63%

Enter from External: 1,596

Exit to External: 1,546

Demand	Balanced	Demand
0% 0	0	0% 0
2% 88	75	3% 75

Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Total	Internal Capture
Enter	13,006	3,968	1,596	18,570	13%
Exit	13,276	3,748	1,546	18,570	
Total	26,282	7,716	3,142	37,140	
Single-Use Trip Gen. Est.	29,070	8,808	4,988	42,866	

CAROUSEL MALL REDEVELOPMENT PROJECT

RBF CONSULTING

H:\pdata\65100614\Technical Studies\Traffic\Admin\Internal Trip Capture\[03-Carousel Mall ITC - PM.xls]Output

Multi-Use Development Trip Generation and Internal Capture Summary

Analyst: Phillip

Date: 3/2/2010

Time Period: PM Peak Hour

Land Use A Shopping Center

ITE LU Code	820
Size	50 TSF

	Total	*Internal*	*External*
Enter	95	9	86
Exit	95	11	84
Total	190	20	170
%	100%	11%	89%

Exit to External **84**

86 *Enter from External*

3% 3	2% 2	12% 11	9% 9
Demand	*Demand*	*Demand*	*Demand*
0	**0**	**11**	**9**
Balanced	*Balanced*	*Balanced*	*Balanced*
31% 0	23% 0	31% 16	53% 15
Demand	*Demand*	*Demand*	*Demand*

Land Use B General Office

ITE LU Code	710
Size	0 TSF

	Total	*Internal*	*External*
Enter	0	0	0
Exit	0	0	0
Total	0	0	0
%	#DIV/0!	#DIV/0!	#DIV/0!

Exit to External **0**

0 *Enter from External*

Land Use C Residential

ITE LU Code	220
Size	125 DU

	Total	*Internal*	*External*
Enter	50	11	39
Exit	28	9	19
Total	78	20	58
%	100%	26%	74%

Enter from External **39**

19 *Exit to External*

Demand	*Balanced*	*Demand*
0% 0	**0**	0% 0
2% 0	**0**	2% 1
Demand	*Balanced*	*Demand*

Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Total	Internal Capture
Enter	**86**	**0**	**39**	**125**	**15%**
Exit	**84**	**0**	**19**	**103**	
Total	**170**	**0**	**58**	**228**	
Single-Use Trip Gen. Est.	**190**	**0**	**78**	**268**	

SECCOMBE LAKE VILLAGE

RBF CONSULTING

H:\pdata\65100614\Technical Studies\Traffic\Admin\Internal Trip Capture\[05-Seccombe Lake ITC - PM.xls]Output

Multi-Use Development Trip Generation and Internal Capture Summary

Analyst: Phillip

Date: 3/2/2010

Time Period: Daily

Land Use A Shopping Center

ITE LU Code	820
Size	50 TSF

	Total	Internal	External
Enter	1,074	97	977
Exit	1,074	118	956
Total	2,148	215	1,933
%	100%	10%	90%

Exit to External **956**

977 *Enter from External*

3%	32	*Demand*
	0	*Balanced*
15%	0	*Demand*

4%	43	*Demand*
	0	*Balanced*
22%	0	*Demand*

11%	118	*Demand*
	118	*Balanced*
33%	137	*Demand*

9%	97	*Demand*
	97	*Balanced*
38%	158	*Demand*

Land Use B General Office

ITE LU Code	710
Size	0 TSF

	Total	Internal	External
Enter	0	0	0
Exit	0	0	0
Total	0	0	0
%	#DIV/0!	#DIV/0!	#DIV/0!

Exit to External **0**

0 *Enter from External*

Demand	*Balanced*	*Demand*
0% 0	**0**	0% 0
2% 0	**0**	3% 12
Demand	*Balanced*	*Demand*

Land Use C Residential

ITE LU Code	220
Size	125 DU

	Total	Internal	External
Enter	416	118	298
Exit	416	97	319
Total	832	215	617
%	100%	26%	74%

Enter from External **298**

319 *Exit to External*

Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Total	Internal Capture
Enter	**977**	**0**	**298**	**1,275**	**14%**
Exit	**956**	**0**	**319**	**1,275**	
Total	**1,933**	**0**	**617**	**2,550**	
Single-Use Trip Gen. Est.	**2,148**	**0**	**832**	**2,980**	

SECCOMBE LAKE VILLAGE

Multi-Use Development Trip Generation and Internal Capture Summary

Analyst: Phillip

Date: 3/2/2010

Time Period: PM Peak Hour

Land Use A Shopping Center

ITE LU Code	820
Size	25 TSF

	Total	*Internal*	*External*
Enter	46	1	45
Exit	48	1	47
Total	94	2	92
%	100%	2%	98%

Exit to External **47**

45 *Enter from External*

3% 1 *Demand*

1 *Balanced*

31% 15 *Demand*

2% 1 *Demand*

1 *Balanced*

23% 54 *Demand*

12% 6 *Demand*

0 *Balanced*

31% 0 *Demand*

9% 4 *Demand*

0 *Balanced*

53% 0 *Demand*

Land Use B General Office

ITE LU Code	710
Size	190 TSF

	Total	*Internal*	*External*
Enter	48	1	47
Exit	236	1	235
Total	284	2	282
%	100%	1%	99%

Exit to External **235**

47 *Enter from External*

Demand 0% 0 — *Balanced* **0** — *Demand* 0% 0

2% 5 *Demand* — **0** *Balanced* — 2% 0 *Demand*

Land Use C Residential

ITE LU Code	220
Size	0 DU

	Total	*Internal*	*External*
Enter	0	0	0
Exit	0	0	0
Total	0	0	0
%	#DIV/0!	#DIV/0!	#DIV/0!

Enter from External **0**

0 *Exit to External*

Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Total	Internal Capture
Enter	**45**	**47**	**0**	**92**	**1%**
Exit	**47**	**235**	**0**	**282**	
Total	**92**	**282**	**0**	**374**	
Single-Use Trip Gen. Est.	**94**	**284**	**0**	**378**	

ARROWHEAD CREDIT UNION HEADQUARTERS CAMPUS

RBF CONSULTING

Multi-Use Development Trip Generation and Internal Capture Summary

Analyst: Phillip

Date: 3/2/2010

Time Period: Daily

Land Use A Shopping Center

ITE LU Code	820
Size	25 TSF

	Total	Internal	External
Enter	537	21	516
Exit	537	16	521
Total	1,074	37	1,037
%	100%	3%	97%

Exit to External **521**

516 *Enter from External*

3%	16	*Demand*
	16	*Balanced*
15%	157	*Demand*

4%	21	*Demand*
	21	*Balanced*
22%	230	*Demand*

11%	59	*Demand*
	0	*Balanced*
33%	0	*Demand*

9%	48	*Demand*
	0	*Balanced*
38%	0	*Demand*

Land Use B General Office

ITE LU Code	710
Size	190 TSF

	Total	Internal	External
Enter	1,046	16	1,030
Exit	1,046	21	1,025
Total	2,092	37	2,055
%	100%	2%	98%

Exit to External **1,025**

1,030 *Enter from External*

0%	0	*Demand*
	0	*Balanced*
0%	0	*Demand*

2%	21	*Demand*
	0	*Balanced*
3%	0	*Demand*

Land Use C Residential

ITE LU Code	220
Size	0 DU

	Total	Internal	External
Enter	0	0	0
Exit	0	0	0
Total	0	0	0
%	#DIV/0!	#DIV/0!	#DIV/0!

Enter from External **0**

0 *Exit to External*

Net External Trips for Multi-Use Development					
	Land Use A	**Land Use B**	**Land Use C**	**Total**	**Internal Capture**
Enter	**516**	**1,030**	**0**	**1,546**	**2%**
Exit	**521**	**1,025**	**0**	**1,546**	
Total	**1,037**	**2,055**	**0**	**3,092**	
Single-Use Trip Gen. Est.	**1,074**	**2,092**	**0**	**3,166**	

ARROWHEAD CREDIT UNION HEADQUARTERS CAMPUS

RBF CONSULTING

H:\pdata\65100614\Technical Studies\Traffic\Admin\Internal Trip Capture\[08-ArrowheadCU ITC - Daily.xls]Output

Multi-Use Development Trip Generation and Internal Capture Summary

Analyst: Phillip

Date: 3/2/2010

Time Period: PM Peak Hour

Land Use A Shopping Center

ITE LU Code	820
Size	75 TSF

	Total	Internal	External
Enter	137	15	122
Exit	143	21	122
Total	280	36	244
%	100%	13%	87%

Exit to External: 122

Enter from External: 122

	Demand	Balanced
A → B	3% 4	4
A → C	2% 3	3
B → A	12% 17	17
C → A	9% 12	12
B → B	31% 39	
C → C	23% 143	
B → C	31% 21	
C → B	53% 20	

Land Use B General Office

ITE LU Code	710
Size	500 TSF

	Total	Internal	External
Enter	125	4	121
Exit	620	4	616
Total	745	8	737
%	100%	1%	99%

Exit to External: 616

Enter from External: 121

Land Use C Residential

ITE LU Code	220
Size	170 DU

	Total	Internal	External
Enter	68	18	50
Exit	37	12	25
Total	105	30	75
%	100%	29%	71%

Enter from External: 50

Exit to External: 25

	Demand	Balanced	Demand
B → C	0% 0	0	0% 0
C → B	2% 12	1	2% 1

Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Total	Internal Capture
Enter	122	121	50	293	7%
Exit	122	616	25	763	
Total	244	737	75	1,056	
Single-Use Trip Gen. Est.	280	745	105	1,130	

Intermodal Station and Transit-Oriented Development

RBF CONSULTING

H:\pdata\65100614\Technical Studies\Traffic\Admin\Internal Trip Capture\[09-sbX TOD ITC - PM.xls]Output

Multi-Use Development Trip Generation and Internal Capture Summary

Analyst: Phillip

Date: 3/2/2010

Time Period: Daily

Land Use A Shopping Center

ITE LU Code	820
Size	75 TSF

	Total	Internal	External
Enter	1,611	209	1,402
Exit	1,611	225	1,386
Total	3,222	434	2,788
%	100%	13%	87%

Exit to External **1,386**

1,402 *Enter from External*

3%	48	*Demand*
	48	*Balanced*
15%	413	*Demand*

4%	64	*Demand*
	64	*Balanced*
22%	606	*Demand*

11%	177	*Demand*
	177	*Balanced*
33%	187	*Demand*

9%	145	*Demand*
	145	*Balanced*
38%	215	*Demand*

Land Use B General Office

ITE LU Code	710
Size	500 TSF

	Total	Internal	External
Enter	2,753	48	2,705
Exit	2,753	81	2,672
Total	5,506	129	5,377
%	100%	2%	98%

Exit to External **2,672**

2,705 *Enter from External*

0%	0	*Demand*
	0	*Balanced*
0%	0	*Demand*

2%	55	*Demand*
	17	*Balanced*
3%	17	*Demand*

Land Use C Residential

ITE LU Code	220
Size	170 DU

	Total	Internal	External
Enter	566	194	372
Exit	566	145	421
Total	1,132	339	793
%	100%	30%	70%

Enter from External **372**

421 *Exit to External*

Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Total	Internal Capture
Enter	**1,402**	**2,705**	**372**	**4,479**	**9%**
Exit	**1,386**	**2,672**	**421**	**4,479**	
Total	**2,788**	**5,377**	**793**	**8,958**	
Single-Use Trip Gen. Est.	**3,222**	**5,506**	**1,132**	**9,860**	

Intermodal Station and Transit-Oriented Development

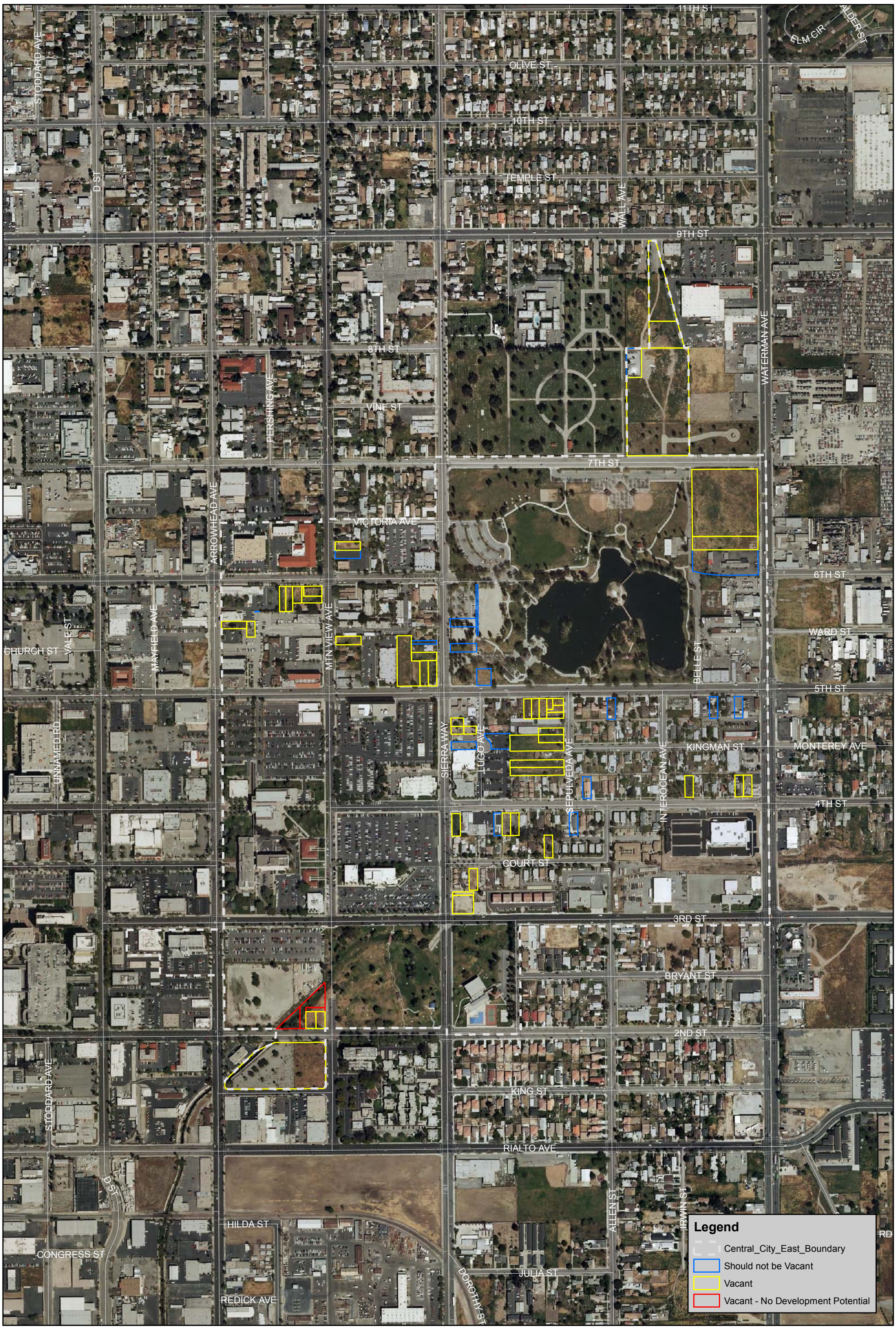
RBF CONSULTING

H:\pdata\65100614\Technical Studies\Traffic\Admin\Internal Trip Capture\[10-sbX TOD ITC - Daily.xls]Output

APPENDIX G
VACANT LAND DEVELOPMENT POTENTIAL

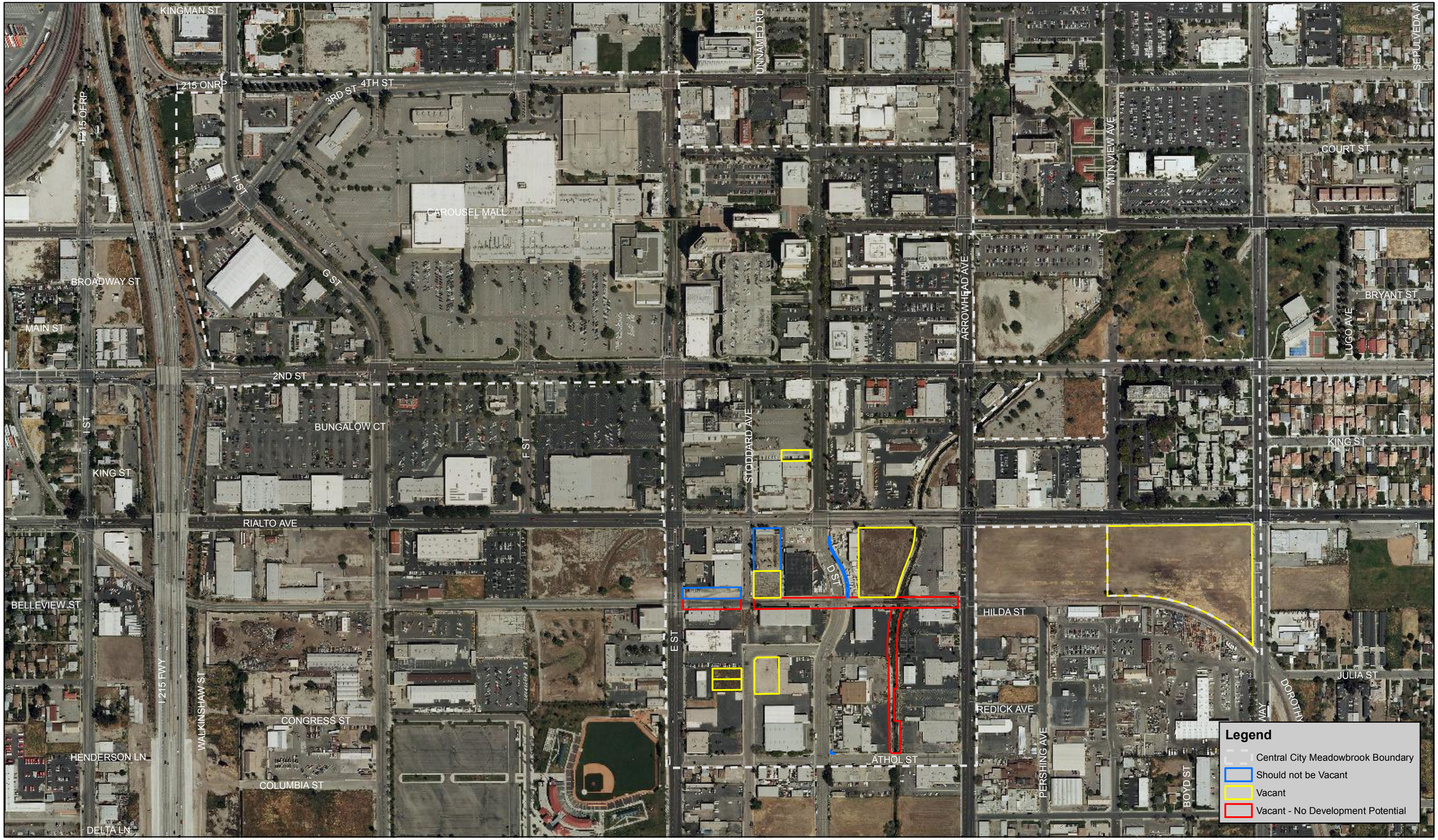
Appendix G-1: San Bernardino Redevelopment Project Area Merger - Area A						
	Commercial					
Development Potential	Retail/ General	Office	Lodging	Industrial	Residential	Note
Vacant Land Analysis	2,309,894	909,780		518,916	788	
Carousel Mall Redevelopment Project	377,000	800,000	300,000		750	
Heritage Square	30,000					
Redevelopment of Former Military Facilities	90,000					
Seccombe Lake Village	50,000				125	
Arrowhead Credit Union Headquarters Campus	25,000	190,000				Accommodate over 1000 employees (225 new)
Theater District Implementation	25,000					
sbX Intermodal Station and Transit-Oriented Development	75,000	500,000			170	
Total	**2,981,894**	**2,399,780**	**300,000**	**518,916**	**1,833**	

Appendix G-2 - Vacant Land Development Potential					
Redevelopment Project Area	Land Use	Zoning	Acreage	Density/ FAR	Development Potential (sf/ du)
South Valle	Commercial	CG-1	7.78	0.42	141,152
	Commercial	CR-3	7.40	0.36	117,117
	Industrial	IL	5.41	0.63	148,681
	Residential	RMH	3.85	21 du/ac	80
Tri-City North	Residential	RMH	1.40	21	29
	Residential	RM	4.27	4.50	19
	Residential	RS	44.66	12.00	535
Tri-City South	Commercial	CR-3	34.36	0.36	544,058
Center City North	Commercial	CR-2	12.59	0.42	228,437
	Residential	RM	2.35	12 du/ ac	28
	Residential	RMH	0.32	21 du/ac	6
Center City South	Commercial	CCS-1	51.77	0.36	819,980
	Commercial	CCS-2	0.81	0.41	14,518
	Commercial	CG-1	2.87	0.42	51,982
	Commercial	CH	10.87	0.59	278,145
	Industrial	IL	11.02	0.63	303,019
	Public	PCR	26.39	N/A	N/A
	Public	PFC	0.47	N/A	N/A
Meadowbrook	Commercial	CG-1	0.31	0.41	5,468
	Commercial	CH	5.98	0.59	152,943
	Commercial	CO	0.16	0.35	2,399
	Industrial	IL	2.45	0.63	67,216
Center City East	Commercial	CG-1	4.61	0.42	83,488
	Commercial	CO	5.52	0.36	87,400
	Commercial	CR-2	0.93	0.41	16,797
	Public	PF	6.95	N/A	N/A
	Public	PP	0.26	N/A	N/A
	Residential	RH	2.95	31 du/ac	91
Southeast Industrial	Commercial	CG-1	16.54	0.42	299,999
	Commercial	CR-3	23.73	0.36	375,792
	Public	PCR	11.65	N/A	N/A
Subtotals					
Industrial					**518,916**
Commercial					**3,219,674**
Residential					**788**



0 500 1,000 1,500
Feet

Central City - East

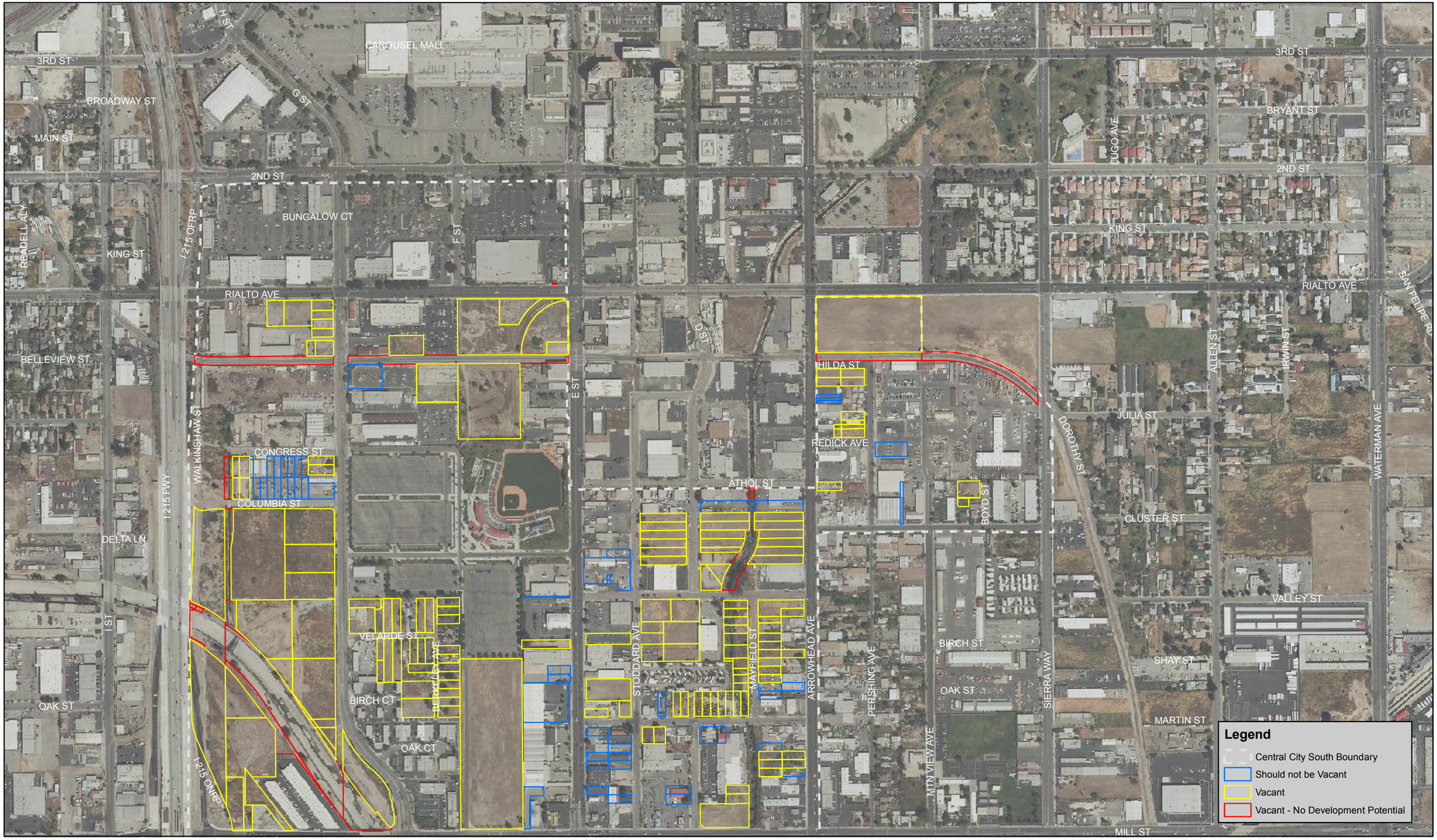


0 400 800 1,200
Feet

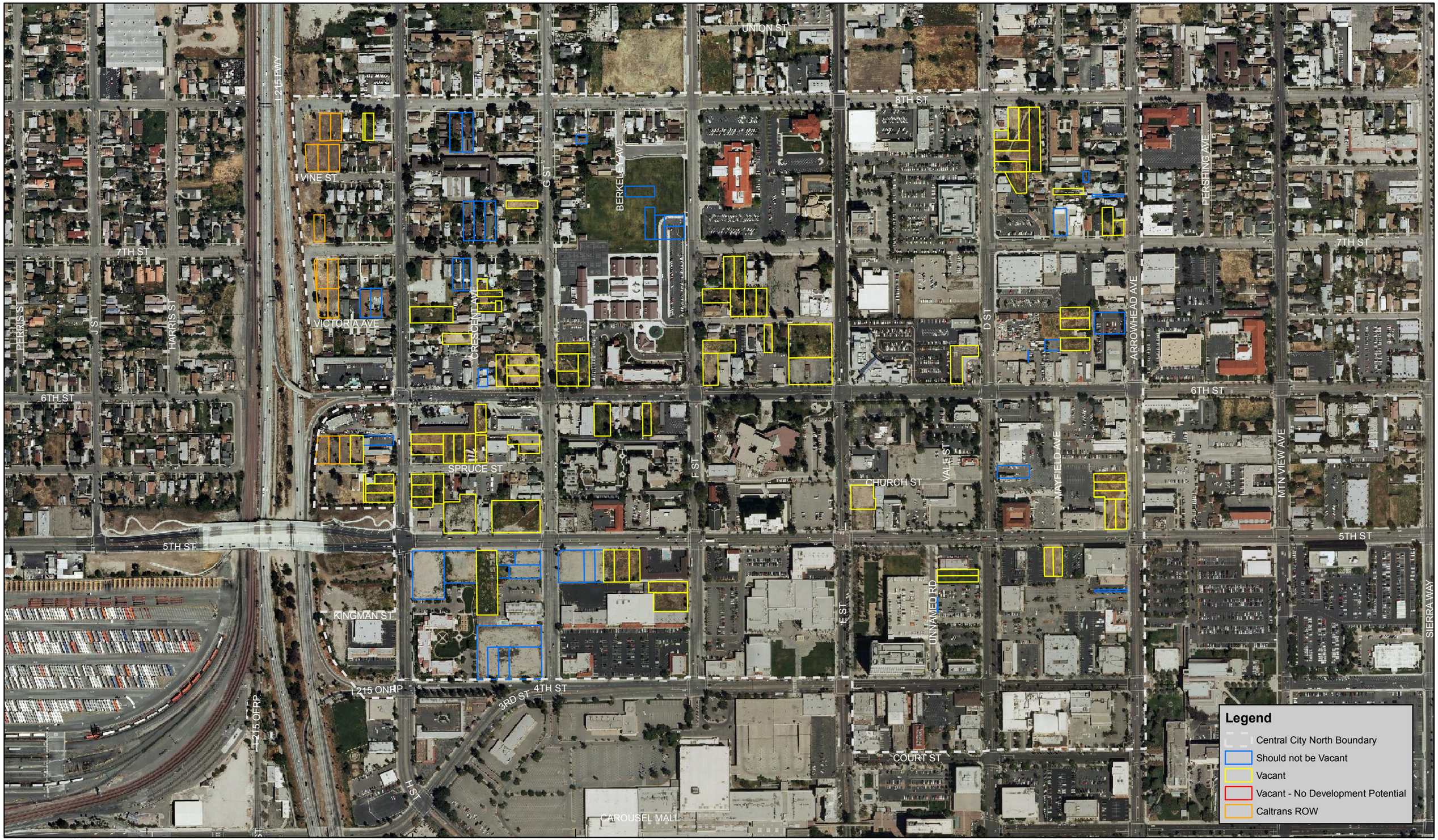
Central City - Meadowbrook

0 500 1,000 1,500
Feet

Central City - South
South of Mill Street



Central City - South
North of Mill Street



0 400 800 1,200
Feet

Central City - North

Southeast - Eastern Area

0 600 1,200 1,800
Feet

Southeast - Western Area

I 10 OFRP
I 10 FWY
I 215 OFRP
STEEL RD
OLIVER HOLMES RD
CLUB WAY
CLUB CENTER DR
SUNSET DR
HUNTS LN
WATERMAN AVE
I 10 ONRP
I 10 FWY
I 10 OFRP
REDLANDS BLVD
CAROLINE ST
GARDENA ST
ARTESIA ST
FARMLAND WAY
INDUSTRIAL RD
STEELE RD
COMMERCIAL DR
CANAL RD
CANADA ST
ALAMITOS DR
RICHMAN DR
CAMPUS AVE
STEWART ST
RINCON ST
COPPER LN
FLINT WAY
TUNGSTEN CT
UNIVERSITY AVE
BARTON RD
ROSARITA DR
YARDLEY PL
SAN MARCOS DR
TAYLOR
WASHINGTON ST
KIMBERLY CT
WIER RD
BEVERLY DR
ANDREW LN
ERIN WAY
CARL PL
HARWICK DR
PLYMOUTH WAY
EATON CT
KNOX CT
WINSTON CT
LIBERTY CT
RICHMOND CT
SALEM CT
FRANKLIN CT
MONROE CT
ANNAPOLIS CR
HARRIS ST
HELENA ST
FOX CT
DURON ST
NAVANO ST
OLIVA CT
CAMERON ST
JACOBS ST
COLUNGA ST
COOLEY LN
APPLEWOOD ST
SADDLEWOOD ST
PEPPERWOOD ST
PLUMWOOD ST
SMOKEWOOD ST
ELMWOOD ST
SMALLWOOD ST
RIVERWOOD ST
MOUNTAIN WOODS ST
DARTMOUTH RD
JACKSON RD
DUBLIN WAY
CHESHIRE LN
SHERWOOD LN
FOXCROFT WAY
MANCHESTER LN
SHADY GLEN LN
WATERFORD CT
HERITAGE LN
MELINDA LN
CAROL WAY
Legend
South Valle Area Boundary
Should not be Vacant
Vacant
Vacant - No Development Potential
0
500
1,000
1,500
Feet

South Valle

0 300 600 900
Feet

Tri-City North

Tri-City South

APPENDIX H

SAN BERNARDINO INTERNATIONAL AIRPORT ENVIRONMENTAL CLEANUP ACTIVITIES

SAN BERNARDINO INTERNATIONAL AIRPORT
(FORMER NORTON AIR FORCE BASE)
ENVIRONMENTAL CLEANUP ACTIVITIES
May 21, 2010

FINAL BASEWIDE RECORD OF DECISION – SEPTEMBER 2005

1) The former Norton AFB was commissioned in 1942 and closed in 1994 under the Base Realignment and Closure Act. The former base comprises 2,105 acres.
2) The base was officially added to the U. S. EPA National Priorities List (NPL) on July 22, 1987 and has been assigned U. S. EPA Identification CA3570024551.
3) The U. S. EPA, California DTSC and the U. S. Air Force signed an interagency Federal Facility Agreement (FFA) on June 29, 1989, which governs the conduct of environmental investigation and cleanup activities for the base.
4) The 2005 Record of Decision (ROD) established the selected remedies for 95 environmental sites and areas of concern that been discovered during widespread investigations at the former base beginning in the early 1980's. The majority of these areas were classified as "No Further Action (NFA) Sites" in the ROD. However, institutional controls to prevent unrestricted land use were placed on four sites. These controls are recorded in the quitclaim deeds and state land use covenants related to these properties. Also, five additional sites were classified as "Removal Sites," with one having been cleaned up and closed since 2005.
5) Only the four remaining Removal Sites at the former base are still under cleanup programs aimed at removing identified contaminants to allow unrestricted land use. They are identified as Sites 7 & 17, Area of Concern 33 and Building 752.

SEVENTEENTH ANNUAL GROUNDWATER TRENDS REPORT – OCTOBER 2009

1) Groundwater studies began at the former base in 1982. A remedy for groundwater protection was selected in the Central Base Operating Unit Record of Decision (ROD) that was signed in 1993 by the U. S. Air Force, U. S. EPA, California DTSC and Regional Water Quality Control Board. The primary source of water contamination was trichloroethylene (TCE) that was used for aircraft maintenance by the U. S. Air Force.
2) During the period covered in the Groundwater Trends Report, there were fifty three monitoring and production wells that were used to monitor water levels and groundwater quality on- and off-base. This is down considerably from three hundred and forty five wells used at the peak of ground water removal and monitoring operations under the Central Base Operating Unit ROD.
3) The TCE groundwater plume has been significantly reduced on the central base. The pump and treat removal operations have been completed and the area is under final monitoring stages prior to closure of the program. Also, the off-base segment of the original plume has been significantly reduced but monitoring continues in a limited area.

CERCLA 5-YEAR REVIEW FOR THE FORMER BASE

1) This review is required under CERCLA in accordance with EPA guidance. A statutory five-year review is required when hazardous substances, pollutants or contaminants are left on-site at levels above that allowing unrestricted land use.
2) The 2010 Five-Year Review is currently underway and will be completed this year. This is the third five-year review for the former Norton Air Force Base.
3) The first two reviews (1999, 2005) involved the 1993 Central Base Area ROD that addresses groundwater contamination at the former base. The 2010 review will cover the 1993 CBA ROD and the 2005 Basewide ROD. As outlined above, the Basewide ROD addresses the four sites with institutional controls and the four remaining Removal Sites at the former base.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) PARCELS

1) The U. S. Air Force utilized an industrial waste disposal system at the former Norton Air Force Base to remove hazardous liquid wastes from hangars and other facilities used for aircraft maintenance and repair. The main waste facilities at the base consisted of an Industrial Waste Line (IWL) and Industrial Waste Treatment Plant (IWTP).
2) These facilities were operated under a RCRA Hazardous Waste Permit that is administered by the California DTSC. Two parcels containing these abandoned IWL/IWTP facilities have institutional controls against unrestricted land use recorded in the quitclaim deeds.
3) Cleanup activities under the 2005 Basewide ROD at Sites 7 & 17, as well as Area of Concern 33, are also related to these former waste treatment facilities. Depending upon the outcome of the cleanup programs, the three IWL/IWTP sites will be closed under a RCRA Post-Closure Hazardous Waste Permit or a Termination of Corrective Action from the California DTSC.

JWG: 05/21/2010