NOTICE OF PUBLIC REVIEW AND INTENT TO ADOPT
A NEGATIVE DECLARATION
City of San Bernardino General Plan Amendments
(2014-2021 Housing Element and Land Use Element Appendix)

Pursuant to the State of California Public Resources Code, this notice is to advise you that the Community Development Department of the City of San Bernardino has prepared an Initial Study on the following project:
City of San Bernardino General Plan Amendments

Project Description: The project is the adoption and implementation of the San Bernardino General Plan 2014-2021 Housing Element and revisions to add Appendix 16 to the General Plan to comply with Senate Bill 244 (codified in Sections 56375, 56425, and 56430, 53082.5, 56033.5, and 65302.10 of the Government Code and Section 13481.7 of the Water Code). The Housing Element is one of seven required elements of the General Plan. It addresses existing and future housing needs of persons in all economic segment groups and serves as a tool for decision-makers and the public in understanding and meeting housing needs in San Bernardino. While the law does not require local governments to actually construct housing to meet identified needs, it does require that the community address housing needs in its discretionary planning actions by creating opportunities for housing in the land use plan and facilitating housing development through policy. As required by Senate Bill 244, Disadvantaged Unincorporated Communities (DUCs) within or adjacent to a city's sphere of influence are required to be identified in a city's General Plan, along with information regarding existing and planned water, sewer, and flood control infrastructure and fire protection services within those communities.

The environmental analysis provided in the Initial Study indicates that the proposed project will not have a significant adverse effect on the environment as the proposed General Plan Amendments do not involve physical development, require any construction or demolition activities, or change any land use designation or zoning district in a manner to could lead to increased residential densities or intensities than are already supported by the existing General Plan Land Use Element. No housing site identified in the Housing Element is listed as a hazardous waste facility, hazardous waste property, or hazardous waste disposal site as enumerated under California Government Code 15070(b). Amendments to comply with SB 244 are for informational purposes; no policy changes or annexations are proposed and no particular infrastructure projects are authorized.

Project Location: The City of San Bernardino 2014-2021 Housing Element applies to all residential and mixed-use zoning districts and all General Plan land use designations that allow residential or mixed-use development within the municipal boundaries of the City of San Bernardino. The proposed amendments to the General Plan Land Use Appendix recognize the existing unincorporated areas within the City's Sphere of Influence (SOI). Located within San Bernardino County, the City of San Bernardino is bounded by the cities of Rialto to the west, Colton to the southwest, Loma Linda to the south, Redlands to the southeast, Highland to the east, and the San Bernardino National Forest to the north. The City encompasses approximately 81 square miles.

Public Review/Public Comment Period: Copies of the proposed Negative Declaration and Initial Study are available for public review at the following locations:

- City of San Bernardino, Community Development Department, 300 N. "D" Street – 3rd Floor
- Norman F. Feldheym Central Library, 555 West 6th Street, San Bernardino, CA 92410

Public Hearing: A public hearing will be held before the San Bernardino Planning Commission on January 15, 2014 at 6:00 PM in the Council Chambers at 300 North "D" Street, San Bernardino, California 92418.

A 30-day public review period for the Mitigated Negative Declaration begins on December 17, 2013 and ends January 16, 2014. **If you would like to comment, please send your written comments so that they are received no later than 6 p.m. on January 16, 2014 to:**

Mr. Tony Stewart, Acting Community Development Director, City of San Bernardino, Community Development Department, 300 N. "D" Street – 3rd Floor, San Bernardino, California 92418 (phone no. 909-384-5057 fax no. 909-384-5080).

Date: December 17, 2013

Signature:_____
Tony Stewart, Acting Community Development Director

City of San Bernardino General Plan Amendments (2014-2021 Housing Element and Land Use Element Appendix)

Initial Study and Negative Declaration

Lead Agency
City of San Bernardino
300 N. "D" Street
San Bernardino, California 92418

Consultant to the City
MIG | Hogle-Ireland
169 N. Marengo Avenue
Pasadena, California 91101

December 2013

- This document is designed for double sided printing -

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Section 1: PURPOSE AND AUTHORITY OF INITIAL STUDY

1.1 - PURPOSE AND AUTHORITY

The purpose of this Initial Study is to identify and assess the significance of the environmental impacts that could result from any potential future physical change in the environment resulting from the adoption and implementation of the City of San Bernardino General Plan 2014-2021 Housing Element (Chapter 3) and amendments to add Appendix 16 (an appendix to the Land Use Element—Chapter 2) to comply with SB 244.

This Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA) Statutes and Guidelines and the City of San Bernardino's local rules and regulations. The proposed project requires discretionary approval from the City of San Bernardino and review by the California Department of Housing and Community Development (HCD). As the project initiator and because of the legislative approvals involved, the City is the Lead Agency with respect to this Initial Study pursuant to §15367 of the CEQA Guidelines. Specifically, this project requires City approval of a General Plan Amendment. No other governmental agencies have discretionary permitting authority with respect to approval of the proposed project, and there are no Trustee Agencies, as defined in §21070 of the CEQA Statutes.

Pursuant to §15074 of the CEQA Guidelines, prior to approving this project, the City is obligated to consider the findings of this Initial Study and to either adopt a Negative Declaration (ND), a Mitigated Negative Declaration (MND), or to determine that an Environmental Impact Report (EIR) is required. The findings of this Initial Study support adoption of a ND, as discussed in Section 4. This means that the long-term plan for development of housing pursuant to the proposed Housing Element, in accordance with the governing land use planning policies and zoning standards, as well as the policy edits to add Appendix 16 to the General Plan associated with compliance with SB 244, would be less than significant.

The environmental determination that is ultimately adopted or certified by the City is part of the discretionary review process with respect to evaluating the merits and disadvantages of the proposed General Plan Amendment. The findings and determination of impact significance presented herein neither presuppose nor mandate any actions by the City concerning future decisions on the proposed General Plan Amendment.

1.2 - CONTENTS

This report has been prepared to comply with Section 15063 of the State CEQA Guidelines, which sets forth the required contents of an Initial Study. These include:

- A description of the project, including the location of the project (see Section 2)
- Identification of the environmental setting (see Section 2.11)
- Identification of environmental effects by use of a checklist, matrix, or other methods, provided that entries on the checklist or other form are briefly explained to indicate that there is some evidence to support the entries (see Section 3)
- Examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls (see Sections 2.6 and 2.7)
- The name(s) of the person(s) who prepared or participated in the preparation of the Initial Study (see Section 5.1)

1.3 - TIERING

Section 15152 et al. of the CEQA Guidelines describes "tiering" as a streamlining tool as follows:

(a) "Tiering" refers to using the analysis of general matters contained in a broader EIR (such as one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project.

(b) Agencies are encouraged to tier the environmental analyses which they prepare for separate but related projects including general plans, zoning changes, and development projects. This approach can eliminate repetitive discussions of the same issues and focus the later EIR or negative declaration on the actual issues ripe for decision at each level of environmental review. Tiering is appropriate when the sequence of analysis is from an EIR prepared for a general plan, policy, or program to an EIR or negative declaration for another plan, policy, or program of lesser scope, or to a site-specific EIR or negative declaration. Tiering does not excuse the lead agency from adequately analyzing reasonably foreseeable significant environmental effects of the project and does not justify deferring such analysis to a later tier EIR or negative declaration. However, the level of detail contained in a first tier EIR need not be greater than that of the program, plan, policy, or ordinance being analyzed.

(c) Where a lead agency is using the tiering process in connection with an EIR for a large-scale planning approval, such as a general plan or component thereof (e.g., an area plan or community plan), the development of detailed, site-specific information may not be feasible but can be deferred, in many instances, until such time as the lead agency prepares a future environmental document in connection with a project of a more limited geographical scale, as long as deferral does not prevent adequate identification of significant effects of the planning approval at hand.

(d) Where an EIR has been prepared and certified for a program, plan, policy, or ordinance consistent with the requirements of this section, any lead agency for a later project pursuant to or consistent with the program, plan, policy, or ordinance should limit the EIR or negative declaration on the later project to affects which:

(1) Were not examined as significant effects on the environment in the prior EIR; or

(2) Are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means.

(e) Tiering under this section shall be limited to situations where the project is consistent with the general plan and zoning of the city or county in which the project is located, except that a project requiring a rezone to achieve or maintain conformity with a general plan may be subject to tiering.

(f) A later EIR shall be required when the initial study or other analysis finds that the later project may cause significant effects on the environment that were not adequately addressed in the prior EIR. A negative declaration shall be required when the provisions of Section 15070 are met.

(1) Where a lead agency determines that a cumulative effect has been adequately addressed in the prior EIR that effect is not treated as significant for purposes of the later EIR or negative declaration, and need not be discussed in detail.

(2) When assessing whether there is a new significant cumulative effect, the lead agency shall consider whether the incremental effects of the project would be considerable when viewed in the context of past, present, and probable future projects. At this point, the question is not whether there is a significant cumulative impact, but whether the effects of the project are cumulatively considerable. For a discussion on how to assess whether project impacts are cumulatively considerable, see Section 15064(i).

(3) Significant environmental effects have been "adequately addressed" if the lead agency determines that:

(A) they have been mitigated or avoided as a result of the prior environmental impact report and findings adopted in connection with that prior environmental report; or

(B) they have been examined at a sufficient level of detail in the prior environmental impact report to enable those effects to be mitigated or avoided by site specific revisions, the imposition of conditions, or by other means in connection with the approval of the later project.

(g) When tiering is used, the later EIRs or negative declarations shall refer to the prior EIR and state where a copy of the prior EIR may be examined. The later EIR or

negative declaration should state that the lead agency is using the tiering concept and that it is being tiered with the earlier EIR.

(h) There are various types of EIRs that may be used in a tiering situation. These include, but are not limited to, the following:

(1) General Plan EIR (Section 15166).

(2) Staged EIR (Section 15167).

(3) Program EIR (Section 15168).

(4) Master EIR (Section 15175).

(5) Multiple-family residential development / residential and commercial or retail mixed-use development (Section 15179.5).

(6) Redevelopment project (Section 15180).

(7) Projects consistent with community plan, general plan, or zoning (Section 15183).

This Initial Study for the San Bernardino 2014-2021 Housing Element has been prepared through tiering from the City of San Bernardino General Plan EIR (2005). This document is available for public review at on the City's website (http://www.sbcity.org/cityhall/community_development/planning/planning_documents.asp) and at:

City of San Bernardino
Community Development Department, Planning Division
300 N. "D" Street – 3rd Floor
San Bernardino, California 92418

1.4 - APPROACH

The environmental analysis contained in this Initial Study is based on the following assumptions:

General Plan Consistency: As the General Plan is updated and/or amended, the City will ensure that such updates and amendments do not prevent implementation of the policies contained in the General Plan Amendment.

Project Specific Environmental Review: In the City of San Bernardino, all development proposals are subject to an environmental review process to determine if CEQA review is required and if so, to identify potential impacts and impose appropriate mitigation measures, if needed, to avoid significant impacts. This includes both discretionary projects, subject to the requirements of CEQA, and smaller-scale ministerial projects that require issuance of building permits.

Purpose of Environmental Review: This project does not authorize any plan for construction of new homes or other uses or redevelopment of any properties. No direct environmental impacts, therefore, would occur. This Initial Study addresses the assessment of potential environmental impacts resulting from the long-term effects of potential development facilitated by the General Plan Amendment in accordance with the City's existing land use policies. No changes to land use policy related to density or intensity are proposed. The purpose of the environmental assessment is to determine whether there are any peculiar types of impacts that could occur as an indirect result of the proposed General Plan Amendment strategies that were not examined in the General Plan EIR (2005) or if there could be impacts that are more severe than those anticipated in the EIR.

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Section 2: PROJECT DESCRIPTION

2.1 - PROJECT TITLE

City of San Bernardino General Plan Amendments (2014-2021 Housing Element and Land Use Appendix 16)

2.2 - LEAD AGENCY NAME AND ADDRESS

City of San Bernardino
300 N. "D" Street
San Bernardino, California 92418

2.3 - CONTACT PERSON AND PHONE NUMBER

Tony Stewart, Acting Community Development Director
909-384-5357

2.4 - PROJECT LOCATION

The City of San Bernardino 2014-2021 Housing Element applies to all proposed and existing residential and mixed-use zoning districts, as well as to General Plan land use designations that allow residential or mixed-use development within the municipal boundaries of the City of San Bernardino. The proposed amendments to the General Plan Land Use Appendix recognize the existing unincorporated areas within the City's Sphere of Influence (SOI). The City of San Bernardino is located in the County of San Bernardino and is bounded by the Cities of Rialto to the west, Colton to the southwest, Loma Linda to the south, Redlands to the southeast, Highland to the east, and the San Bernardino National Forest to the north. The San Bernardino Freeway (Interstate 215) and the Foothill Freeway (State Route 210) provide regional access. The planning area encompasses approximately 45,231 acres. Exhibit 1 (Regional Location and Vicinity Map) illustrates the City's location within San Bernardino County and its local context.

2.5 - PROJECT SPONSOR'S NAME AND ADDRESS

City of San Bernardino
Community Development Department
300 N. "D" Street - 3rd Floor
San Bernardino, California 92418

2.6 - GENERAL PLAN DESIGNATIONS

The existing residential and mixed-use land use designations that support housing development within the City of San Bernardino include those listed below in Table 1 (General Plan Residential Land Uses):[1]

Table 1
General Plan Residential Land Uses

Land Use Designation	Intended Use	Maximum Density
Residential Estate (RE)	Single-Family detached in an estate setting	1 du/ac
Residential Low (RL)	Single-Family detached in low-density setting	3.1 du/ac
Residential Low-3.5 (RL-3.5)	Single-Family detached in suburban setting	3.5 du/ac
Residential Suburban (RS)	Single-Family detached in a high quality suburban setting	4.5 du/ac
Residential Urban (RU)	Single/Multi-Family attached and detached, including townhouses, stacked flats, courtyard homes, small lot subdivisions, and mobile home parks	9 du/ac
Residential Medium (RM)	Multi-Family including townhouses, stacked flats, courtyard homes, apartments and condominiums, as well as small lot single-family developments	14 du/ac
Residential Medium High-20 (RMH-20)	Multi-Family including apartments and condominiums	20 du/ac
Residential Medium High-24 (RMH-24)	Multi-family dwellings including apartments and condominiums	24 du/ac
Residential High (RH)	Multi-family dwellings including apartments and condominiums	36 du/ac
Commercial General (CG-1)	Local and regional serving retail, personal service, entertainment, office, related commercial uses and limited residential uses with a CUP	0.7 floor area ratio
Commercial General-2 (CG-2)	Local and regional serving retail, personal service, entertainment, office, related commercial uses and limited residential uses with a CUP	1.0 floor area ratio
Commercial Regional-2 (CR-2) Downtown	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	Residential density: 54 du/ac

2.7 - ZONING DISTRICTS

Existing zoning districts that support residential development in San Bernardino are listed below in Table 2 (Residential Zoning Districts) along with the applicable development standards.[2]

[1] City of San Bernardino General Plan. Chapter 2: Land Use. 2005.
[2] City of San Bernardino. Development Code Title 19. 2013.

Table 2
Residential Zoning Districts

District	Maximum Density (dwelling units/acre)
Residential Estate (RE)	1 du/ac
Residential Low (RL)	3.1 du/ac
Residential Low-3.5 (RL-3.5)	3.5 du/ac
Residential Suburban (RS)	4.5 du/ac
Residential Urban (RU)	9 du/ac or 12 du/ac if senior housing
Residential Medium (RM)	14 du/ac or 18 du/ac if senior housing
Residential Medium High-20 (RMH-20)	20 du/ac
Residential Medium High (RMH)	24 du/ac or 36 du/ac if senior housing
Residential High (RH)	36 du/ac or 47 du/ac if senior housing,
Residential Student Housing Overlay (RSH)	20 units/acre and with no more than 60 bedrooms/acre
Commercial Office (CO)	47 du/ac for senior citizen/senior congregate care housing
Commercial General (CG-1)	47 du/ac for senior citizen/senior congregate care housing
Commercial General-2 (CG-2)	12 du/ac (Mount Vernon Avenue, Baseline Street, designated locations west of I-215) 21 du/ac acre (Baseline Street and other designated locations east of I-215) Density Bonus of 50% for senior citizen/senior congregate care subject to approval of Conditional Use Permit
Commercial Regional Downtown (CR-2)	47 du/ac or 130 du/ac if senior housing

2.8 - PROJECT DESCRIPTION

The project is the adoption and implementation of the San Bernardino General Plan 2014-2021 Housing Element and revisions to add Appendix 16 to the General Plan to comply with SB 244 (referred to collectively as "General Plan Amendments").

Housing Element

The Housing Element is one of seven required elements of the General Plan. It addresses existing and future housing needs of persons in all economic segment groups and serves as a tool for decision-makers and the public in understanding and meeting housing needs in San Bernardino. While the law does not require local governments to actually construct housing to meet identified needs, it does require that the community address housing needs in its discretionary planning actions by creating opportunities for housing in the land use plan and facilitating housing development through policy.

Statutory Requirements

State law requires that all housing elements address four key topics: 1) housing needs, 2) constraints to housing development, 3) housing resources, and 4) a housing plan. Analysis of these topics provides the foundation for the preparation of a housing element. Article 10.6, Section 65580 - 65589.8, Chapter 3 of Division 1 of Title 7 of the Government Code sets forth the legal requirements for a housing element and encourages the provision of affordable and decent housing in suitable living environments for all communities to meet statewide goals. This 2014-2021 Housing Element update is a policy document of the City of San Bernardino regarding current and projected future housing needs, and the City's goals, policies, and programs to address those identified needs, and represents a focused update to the City's adopted 2008-2014 Housing Element, which was found to be fully in compliance with State law by the California Department of Housing and Community Development (HCD).

Housing Needs

Several factors influence the demand for housing in San Bernardino and consistent with State Housing Element law. The four major needs categories considered in the Housing Element include: 1) housing needs resulting from population growth, both in the City and the surrounding region; 2) housing needs resulting from overcrowding of units; 3) housing needs that result when households are paying more than they can afford for housing; and 4) housing needs of "special needs groups" such as the elderly, large families, female-headed households, households with a physically or developmentally disabled person, farm workers, and the homeless.

The San Bernardino 2014-2021 Housing Element profiles key community demographics and examines the related housing needs of various groups, including owners versus renters, lower-income households, overcrowded households, elderly households, special needs groups, and homeless persons. This information is detailed in the Housing Element.

California housing element law requires that each city and county develop local housing programs designed to meet their "fair share" of housing needs for all income groups, based on projected population growth. The HCD Housing Policy Division develops Regional Housing Needs Assessments (RHNA) for each region of the State represented by councils of governments. The Southern California Association of Governments (SCAG) determines the housing allocation for each city and county within its six-county jurisdiction. SCAG has assigned the City of San Bernardino a housing allocation of 4,384 units for the 2014-2021 planning period. Table 3 (Regional Housing Needs Assessment) identifies the total projected housing needs for the 2014-2021 Housing Element.

Table 3
Regional Housing Needs Assessment

Income Category	% of County AMI	2014-2021 RHNA Allocation Number of Units	Percentage of Units
Extremely Low	0-50%	0	0%
Very Low	30-50%	980	22%
Low	51-80%	696	16%
Moderate	81-120%	808	19%
Above Moderate	120% +	1,900	43%
Total		4,384	100%

Source: SCAG 2013

Housing Opportunity Sites

The San Bernardino Housing Element identifies sites and future housing development opportunities for the 2014-2021 planning period to meet the RHNA. San Bernardino has identified a variety of vacant and underutilized sites that can potentially accommodate 14,003 total units. These sites are described in the following pages and are identified in Exhibit 2. No changes to land use policy (designations or densities) are proposed. Opportunity sites are identified based on existing land use policy to permit residential development, stated developer interest, location, and limited land value to improvement ratios.

Vacant and Underutilized Land

The proposed Housing Element identifies vacant mixed-use and residential sites within the City as well as one underutilized mixed-use site that would accommodate the 2014-2021 RHNA. Eleven vacant mixed-use sites totaling 10.7 acres could accommodate 200 units. These eleven sites are zoned CR-2, which permits high densities for residential development. In the CR-2 zone, senior housing may achieve densities of up to 130 units per acre and non-senior housing is permitted at 47 units per acre. The Carousel Mall mixed-use site is a 44.23-acre underutilized property identified in the Housing Element. The mall was opened in the 1970s and has been in decline since the 1980s due to increasing competition from nearby regional shopping centers. The mall is primarily vacant with the exception of a few retail stores, county government and school district offices. The Carousel Mall property has the potential to yield an estimated 885 units. This site would permit residential development at maximum densities of 47 units per acre and 130 units per acre for senior housing. See Table 4 (Residential Capacity on Mixed-Use Sites).

Table 4
Residential Capacity on Mixed-Use Sites

General Plan Designation	Zoning	Maximum Density	Acres	Potential Dwelling Units	Affordability Level
Mixed-Use Site 1/Vacant	CR-2	47/130 sr.	1.48	29	Very Low/Low
Mixed-Use Site 2/Vacant	CR-2	47/130 sr.	0.67	15	Very Low/Low
Mixed-Use Site 3/Vacant	CR-2	47/130 sr.	0.56	11	Very Low/Low
Mixed-Use Site 4/Vacant	CR-2	47/130 sr.	0.54	11	Very Low/Low
Mixed-Use Site 5/Vacant	CR-2	47/130 sr.	1.01	20	Very Low/Low
Mixed-Use Site 6/Vacant	CR-2	47/130 sr.	0.69	14	Very Low/Low
Mixed-Use Site 7/Vacant	CR-2	47/130 sr.	1.07	21	Very Low/Low
Mixed-Use Site 8/Vacant	CR-2	47/130 sr.	0.77	15	Very Low/Low
Mixed-Use Site 9/Vacant	CR-2	47/130 sr.	1.27	25	Very Low/Low
Mixed-Use Site 10/Vacant	CR-2	47/130 sr.	1.30	25	Very Low/Low
Mixed-Use Site 11/Vacant	CR-2	47/130 sr.	0.71	14	Very Low/Low
Carousel Mall Mixed Use Site/Underutilized	CR-2	47/130 sr.	44.23	885	Very Low/Low
Total			54.29	1,085	

The primary resource for accommodating the 2014-2021 RHNA is residentially zoned vacant land. There are approximately 4,100 acres (approximately 1,070 parcels) of vacant land that could support approximately 12,918 new units. The majority of this land is located in the northern, less urbanized area of the City. See Table 5 (Residential Capacity on Vacant Residential Sites).

Table 5
Residential Capacity on Vacant Residential Sites

Zoning	Maximum Density	Acres	Potential Dwelling Units	Affordability Level
Residential Estate (RE)	1	490.2	392	Above Moderate
Residential Low (and Low 3.5) (RL)	3.1 or 3.5	2,735.2	6,844	Above Moderate
Residential Suburban (RS)	4.5	525.2	1,922	Above Moderate
Residential Urban (RU)	8/12 sr.	142.8	1,134	Above Moderate
Residential Medium (RM)	12/18 sr.	178.2	1,963	Moderate
Residential Medium High (RMH)	24/36 sr.	23.5	513	Very Low/Low
Residential High (RH)	31/47 sr.	5.5	150	Very Low/Low
Total		4,100	12,918	

Housing Plan

The stated objective of the Housing Element is to facilitate and encourage housing that fulfills the diverse needs of the community. To achieve this goal, the Housing Plan identifies long-term housing goals and supporting policies to address housing needs. The goals and policies are then implemented through a series of housing programs. Programs identify specific actions the City plans to undertake toward achieving each goal and policy. The goals identified in the Housing Element are listed below.

Goal H3.1 **Identify adequate sites for a variety of housing types**

Goal H3.2: **Conserve and improve the existing affordable housing stock and revitalize deteriorating neighborhoods.**

Goal H3.3: **Assist in the provision of housing affordable to lower and moderate-income households.**

Goal H3.4 **Promote equal housing opportunities for all persons in San Bernardino.**

Goal H3.5 **Reduce the adverse effects of governmental actions on the production, preservation, and conservation of housing, particularly for lower- and moderate-income households.**

Goal H3.6 **Reduce the amount of energy expended on the construction, conservation, and preservation of housing.**

Disadvantaged Unincorporated Communities--SB 244 (Land Use Element Appendix)

As required by Senate Bill 244 (codified in Sections 56375, 56425, and 56430, 53082.5, 56033.5, and 65302.10 of the Government Code and Section 13481.7 of the Water Code), Disadvantaged Unincorporated Communities (DUCs) within or adjacent to a city's sphere of influence are required to be identified in a city's General Plan, along with information regarding existing and planned water, sewer, and flood control infrastructure and fire protection services within those communities. DUCs are defined as inhabited unincorporated areas with an annual median household income (MHI) that is less than 80 percent of the statewide annual MHI. Based on 2011 Census data from the American Community Survey, the California annual MHI was $61,632, 80 percent of which is $49,306.

DUCs can be in the form of a "fringe" or "island" community. "Fringe community" means any inhabited and unincorporated territory that is within a city's sphere of influence but not surrounded on all sides by the city. "Island community" means any inhabited and unincorporated territory that is surrounded or substantially surrounded by one or more cities or by one or more cities and a county boundary or the Pacific Ocean. Seven areas within the City of San Bernardino's sphere of influence have been identified as DUCs (see Exhibit 3). Additional unincorporated areas within the City's sphere exist, but they are not defined as DUCs due to either an annual MHI that is above the criteria stated above or a lack of population (fewer than 10 dwelling units).

Within the City of San Bernardino Sphere of Influence, there is one fringe and six island communities identified as Disadvantaged Unincorporated Communities (DUCs). These areas have been identified based on local annual median household income as compared to the State annual median household income.

In General, most areas in the DUCs within the City of San Bernardino Sphere of Influence have infrastructure services at levels similar to that found within City limits. Services are provided in the DUCs by the following entities:

Water Service:	Muscoy Mutual Water Company San Bernardino City Municipal Water Department East Valley Water District
Wastewater Service:	City of San Bernardino Public Works Department East Valley Water District
Flood Control Facilities:	City of San Bernardino (Public Works and Public Services Departments) San Bernardino County Flood Control District
Fire Protection Services:	San Bernardino City Fire Department San Bernardino County Fire Department

The 2010 San Bernardino Valley Regional Urban Water Management Plan (UWMP) shows that water supplied for the areas will meet or exceed demands in a normal year, a single-dry year, and a multiple-dry year period. The service providers have indicated that there are continual upgrades and maintenance to the water system. Specific deficiencies have been identified in DUC 6. To address these deficiencies, East Valley Water District (EVWD) is currently replacing the entire water system in these areas with new 8-inch ductile iron pipe, fire hydrants and new water services and meters.

Wastewater collection facilities within DUCs 3, 4, 5, 6, and 7 are owned and operated by the East Valley Water District (EVWD). System deficiencies have been identified in the uppermost parts of DUC 6 where there is no sewer service and there is no sanitary sewer system planned. EVWD serves three out of the six streets in DUC 6 with sewer service. The other three streets are served by leach and septic systems that are over 50 years old and in need of replacement.

Storm drain and flood control facilities within the DUCs are managed by the City of San Bernardino (Public Works and Public Services Departments) and San Bernardino County Flood Control District. Flood hazard maps provided by the Federal Emergency Management Agency (FEMA), year 2008, indicate that many portions of the City and its Sphere of Influence are identified as having a minimal or moderate flood risk.

The DUCs are adequately served by fire services. The distance from the closest fire station to any of the DUCs is at most two miles. This distance is close enough to allow for adequate response time for urban uses within nine minutes, pursuant to National Fire Protection Association response time standards.

Area Descriptions
The DUCs are indicated graphically in Exhibit 3.

DUC 1 (Muscoy Census Designated Place, fringe)
- Census Tract 4101, Block Group 2 (portion)
- Census Tract 4103, Block Groups 1 and 3 (portions)
- Census Tract 4104, Block Group 2 (portion)

As shown in Exhibit 3, DUC 1 is located along the western edge of the City and is commonly known as the community of Muscoy. Muscoy is a Census Designated Place (CDP). According to the U.S. Census Bureau, a CDP is "a statistical counterpart of incorporated places...delineated to provide data for settled concentrations of population that are identifiable by name but are not legally incorporated under the laws of the state in which they are located." The community consists primarily of large lot, rural-type residential development, with animal raising uses and vegetable gardening still common in the area. According to the San Bernardino County Muscoy Community Plan, Muscoy residents have expressed a strong desire to remain rural and want future development to be compatible with the rural character of their community.

DUC 2 (island)

- Census Tract 4505, Block Group 2 (portion)
- Census Tract 4507, Block Group 1

DUC 2 is located just northeast of the Interstate 215 and State Route 210 junction, southeast of California State University, San Bernardino and Kendall Drive on the west. The area is known as Arrowhead Farms and is located in the University District. Land uses consist primarily of large-lot single-family detached residences in a low-density, rural setting.

DUC 3 (island)

- Census Tract 6100, Block Group 4 (portion)
- Census Tract 6203, Block Group 2 (portion)

DUC 4 (island)

- Census Tract 6100, Block Groups 3 and 4 (portions)
- Census Tract 6203, Block Group 1 (portion)

DUC 5 (island)

- Census Tract 6203, Block Group 1 (portion)
- Census Tract 6204, Block Group 1 (portion)

DUCs 3, 4, and 5 are located in close proximity to each other immediately north of State Route 210 (Foothill Freeway). These DUCs are fully developed primarily with single-family homes. A mobile home park comprises most of DUC 3. The land use pattern in these three DUCs is similar to the land use pattern in adjacent areas within City limits.

DUC 6 (island)

- Census Tract 6301, Block Group 4 (portion)
- Census Tract 6302, Block Groups 3 and 4 (portions)

DUC 6 is located south of State Route 210 (Foothill Freeway) and north of Highland Creek. The area is bisected by Pacific Street. This DUC is fully developed primarily with single-family homes. The land use pattern in DUC 6 is similar to the land use pattern in adjacent areas within City limits.

DUC 7 (island)

- Census Tract 6401, Block Group 2 (portion)
- Census Tract 6302, Block Group 1, 2, 3, and 4 (portions)

DUC 7 is located north of Third Street between Waterman and Tippecanoe Avenues, and northwest of San Bernardino International Airport. This DUC is fully developed with residential, industrial, and some commercial and public uses. The land use pattern in DUC 7 is similar to the land use pattern in adjacent areas within City limits

DUC 1 is characterized by very low density, rural type development and based on expressed community desire, is expected to remain as such. In DUCs 2, 3, 4, 5, 6, and 7,

substantial additional development within these areas is not anticipated to occur because the established uses are built consistent with the General Plan land use designations. Individual development projects would need to fund expansion of services through private funding.

With the exception of the Muscoy Mutual Water Company, most system deficiencies identified by service providers are not specific to DUCs but to the service providers' regional system. The service providers have capital improvement plans in place to address current and future deficiencies and in specific cases are actively working to address those deficiencies. Some identified deficiencies, specifically lack of service, that are specific to a small portion of the DUCs have been identified and the respective service providers have expressed a desire to pursue funding to extend services to these areas.

2.9 - PROJECT OBJECTIVES

The goals, policies, and programs in the Housing Element build upon the identified housing needs in the community, constraints confronting the City, and resources available to address the housing needs. San Bernardino's housing goals, policies, and programs address the following six major areas:

- Adequate sites for new housing
- Housing and neighborhood preservation
- Affordable housing assistance
- Equal housing opportunity
- Removal of governmental constraints to housing
- Energy Conservation

The General Plan amendment to add information related to disadvantaged unincorporated communities is intended to comply with State law (SB 244) regarding General Plan content.

2.10 - SURROUNDING LAND USES

The Opportunity Sites shown in Exhibit 2 (Sites Inventory Map) are located throughout the City. The majority are generally located in the northern, less urbanized area of the City. The southern more urbanized area of the City, including the downtown area, is denser and could support a large amount of multifamily housing. Given the variety of sites and locations, it is difficult to provide specific surrounding land use information for every site, and furthermore it is not necessary due to the programmatic nature of the Housing Element (i.e. no particular development project is authorized). Six of the DUCs identified pursuant to SB 244 are located within "island" communities in the north central and eastern portions of the City. One DUC is a "fringe" community located on the western boundary of the City. Surrounding land uses are generally similar to uses within the DUCs.

2.11 - ENVIRONMENTAL SETTING

The City of San Bernardino is located in southwestern San Bernardino County, 60 miles east of Los Angeles. Located in the upper Santa Ana River Valley, the City lies on gently sloping lowland located at the southwest margin of the San Bernardino Mountains. The valley is framed by the San Bernardino Mountains on the northeast and east, the Blue Mountains and Box Springs Mountains (abutting the Cities of Loma Linda and Redlands) to the south, and the San Gabriel Mountains and the Jurupa Hills to the northwest and southwest. Major freeways traversing the City include I-10, I-215, SR-210, SR-18, SR-330, SR-30, and SR-259. The City's total planning area, including the Sphere of Influence is 45,231 acres (71 square miles). This includes 38,402 acres (60 square miles) of incorporated territory and 6,829 acres (11 square miles) of unincorporated lands. San Bernardino's pattern of land uses transitions from predominantly industrial near the Santa Ana River and the San Bernardino International Airport and Trade Center to predominantly residential toward the mountains, with a substantial commercial and industrial core at the center.

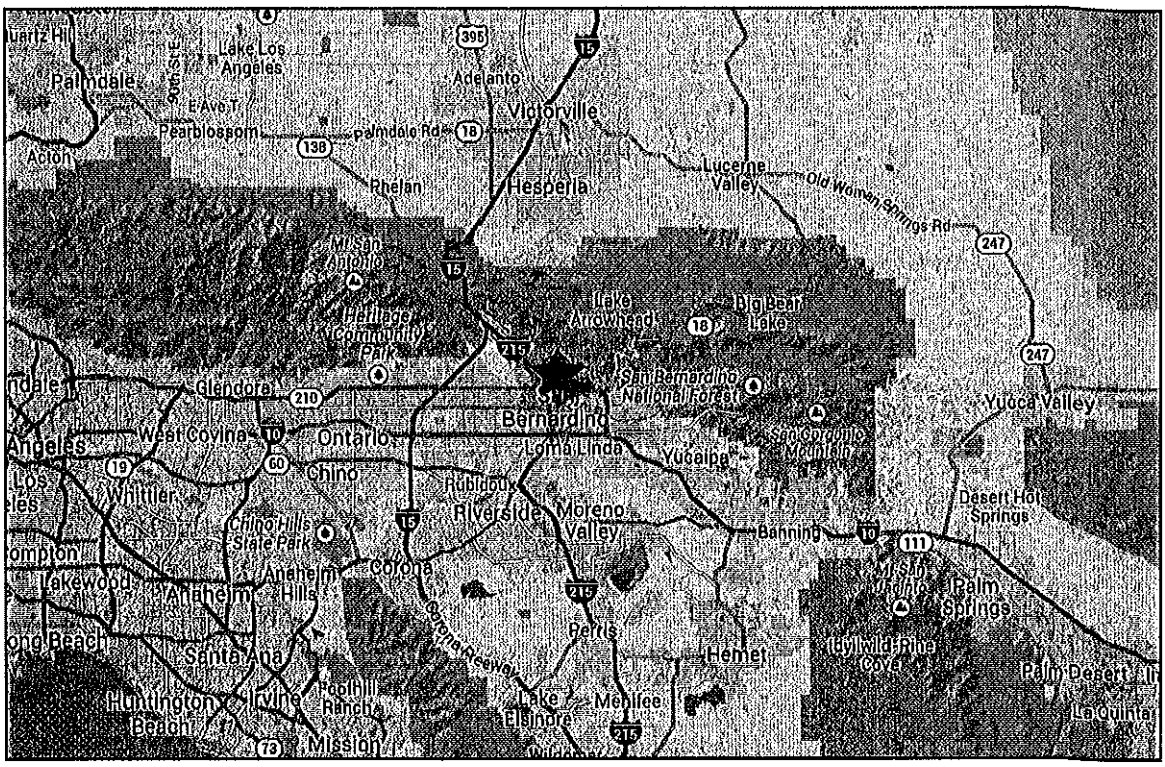
San Bernardino is primarily built out, with a suburban character. Cities surrounding San Bernardino are also generally fully developed and with similar layout, design, and character. The San Bernardino Mountains are located north of the City. See Exhibit 2 for general locations Housing Element Opportunity Sites. With regard to disadvantaged unincorporated communities (see Exhibit 3), existing uses are generally consistent with the San Bernardino General Plan Land Use Element.

2.12 - Required City Approvals

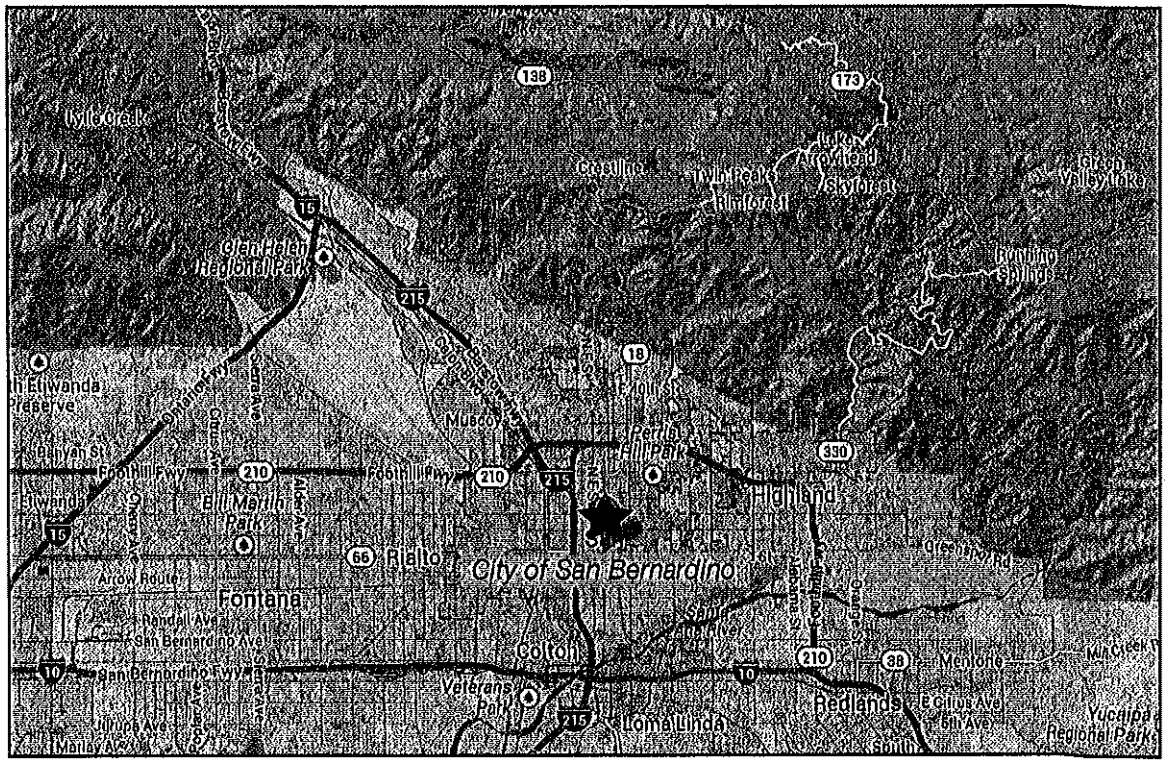
The City Council must approve a General Plan Amendment to: 1) incorporate the 2014-2021 Housing Element into the General Plan and 2) adopt the new Disadvantaged Unincorporated Communities section as an appendix to the Land Use Element (General Plan Appendix 16).

2.13 - Other Agency Approvals

The State of California, Department of Housing and Community Development (HCD) is reviewing the draft Housing Element for compliance with State law. Once adopted, HCD will again review the Housing Element, pursuant to Article 10.6 of the Government Code.



Regional



Vicinity

Not to Sca

Exhibit 1 Regional and Vicinity Map

City of San Bernardino Housing Element Initial Study
San Bernardino, CA

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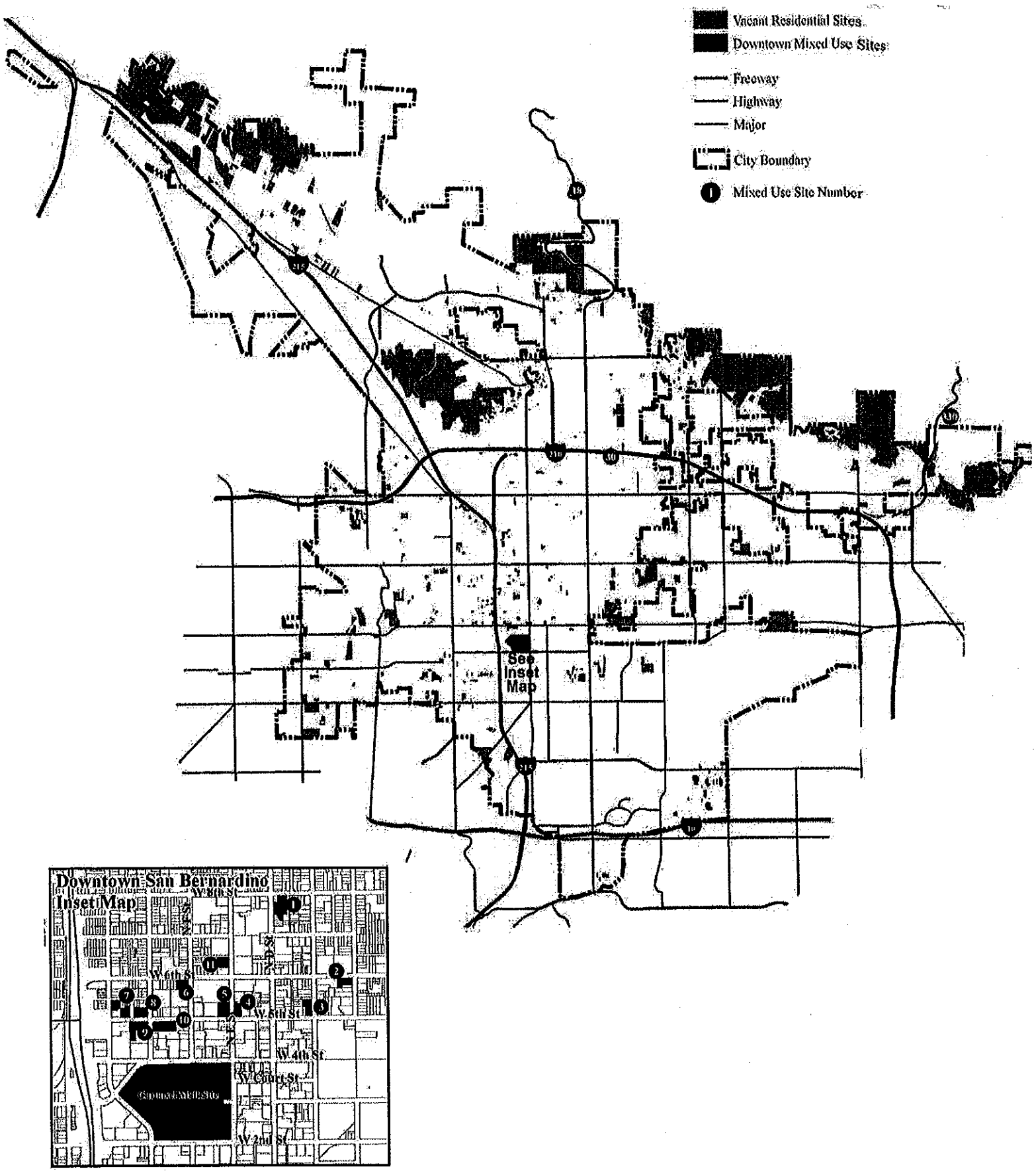

Source: City of San Bernardino Housing Element

Exhibit 2 Sites Inventory Map

City of San Bernardino Housing Element Initial Study
San Bernardino, CA

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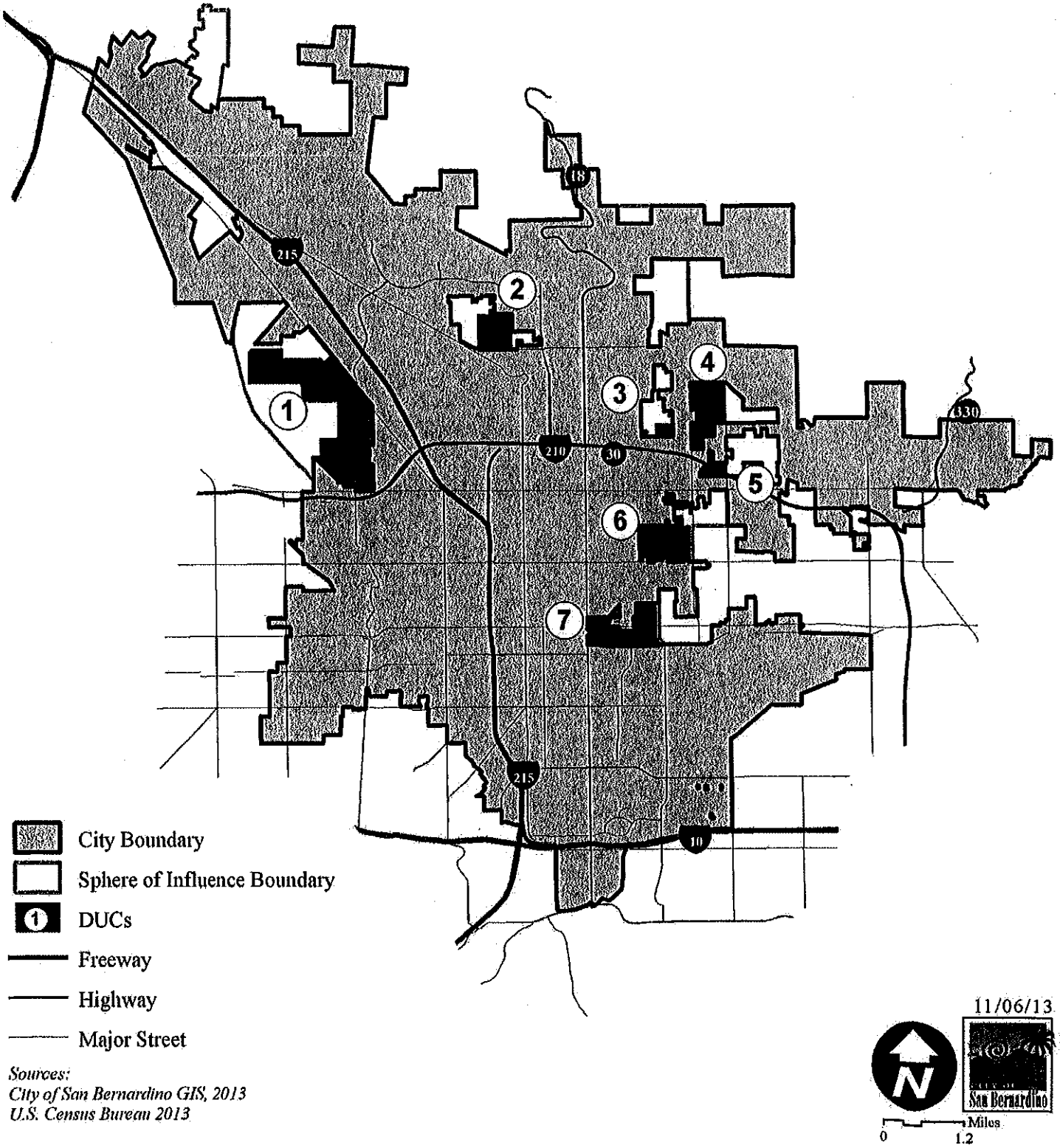

Source: City of San Bernardino GP

Exhibit 3 Disadvantaged Unincorporated Communities

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City of San Bernardino Housing Element Initial Study
San Bernardino, CA

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Section 3: DETERMINATION

3.1 - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

☐	Aesthetics	☐	Agriculture Resources	☐	Air Quality
☐	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		

3.2 - DETERMINATION

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 revisions in the project have been made by or agreed to by the project proponent. 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 "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least 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. 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, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Tony Stewart, Acting Community Development Director
City of San Bernardino

12/17/13
Date

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Section 4: EVALUATION OF ENVIRONMENTAL IMPACTS

4.1 - AESTHETICS

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
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?	☐	☐	☒	☐

a) **Less than Significant Impact.** A scenic vista is defined by a generally uninterrupted view of the horizon, creating an aesthetic viewpoint. Scenic vistas can be impacted by development in two ways. First, a structure may be constructed that blocks a vista. Second, the vista itself may be altered (i.e., development on a scenic hillside).

The City's General Plan EIR identified the adjacent San Bernardino Mountains to the north as the primary scenic resource of the City. The City is located within a low-lying valley that is framed by the San Bernardino Mountains on the northeast and east, Blue Mountain and Box Spring Mountains to the south, and the San Gabriel Mountains and the Jurupa Hills to the northwest and southwest.

Since the proposed Housing Element and development on the related opportunity sites would be consistent with the land uses and intensities analyzed in the General Plan EIR, no additional impacts beyond those analyzed in the General Plan EIR would occur.

The proposed General Plan amendments associated with Disadvantaged Unincorporated Communities do not change any applicable land use designations and do not propose or anticipate any specific development proposals or infrastructure construction. Therefore, these amendments will not result in any impacts that were not

addressed in the General Plan EIR. Therefore, less than significant impacts to scenic vistas would result from implementation of the proposed Housing Element.

b) **Less than Significant Impact.** There are no designated State Scenic Highways located within the City of San Bernardino or sphere of influence (SOI) areas. However, two roadways within the City have been nominated for official Scenic Highway status.[3] The portion of State Route 30 south of State Route 330 and the portion of State Route 330 that passes through the City are designated as Eligible Scenic Highways.[4]

The City of San Bernardino Development Code (Title 19 of the City Municipal Code) contains a Hillside Management Overlay District (Chapter 19.17). The purpose of this overlay district is to provide for low-density residential development in the City's hillside areas and to ensure that this development occurs in a manner which protects the hillside's natural and topographic character and identity, environmental sensitivities, aesthetic qualities, and the public health, safety, and general welfare. It is the intent to encourage a sensitive form of development while still allowing for residential uses which complement the natural and visual character of the City and its hillsides. Policies include the preservation of visually significant rock outcroppings. In addition, General Plan Circulation Policies 6.4.4 through 6.4.7 ensure the preservation of scenic highways by requiring compatible design within scenic highway corridors, requiring dedication of scenic easements, and utilizing contour grading and slope rounding.

Compliance with General Plan policies and the Hillside Management Overlay District development standards will ensure that there will be less than significant impacts to eligible scenic highways.

General Plan Circulation Policies

Policy 6.4.4 Design developments within designated and eligible scenic highway corridors to balance the objectives of maintaining scenic resources with accommodating compatible land uses.

Policy 6.4.5 Encourage joint efforts among federal, state, county, and City agencies and citizen groups to ensure compatible development within scenic corridors.

Policy 6.4.6 Impose conditions on development within scenic highway corridors requiring dedication of scenic easements consistent with the Scenic Highways Plan, when it is necessary to preserve unique or special visual features.

Policy 6.4.7 Utilize contour grading and slope rounding to gradually transition graded road slopes into a natural configuration consistent with the topography of the areas within scenic highway corridors.

[3] City of San Bernardino General Plan. Chapter 6: Circulation. 2005.
[4] California Department of Transportation. California Scenic Highway Mapping System. San Bernardino County. www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm [November 22, 2013]

c) **Less than Significant Impact.** Future housing development could change the on- and off-site visual character of the area in which it is constructed. The City is largely built out and the visual character of the City is suburbanized. Regarding the identified Housing Element opportunity sites to meet the RHNA, the change would generally be from vacant residential and mixed-use as well as underutilized mixed-use to low, medium, and high-density residential and mixed-use development. Future housing development guided by the policies of the proposed Housing Element will be subject to the policies of the General Plan. The Community Design Chapter of the General Plan requires the implementation of good design based upon adopted development standards and guidelines. The proposed Housing Element does not include any changes in land use or intensity. Therefore, with implementation of adopted General Plan policies, future housing and mixed-use constructed pursuant to the Housing Element update will have a less than significant impact on the visual character and quality of the City. The proposed General Plan amendments associated with Disadvantaged Unincorporated Communities do not change any applicable land use designations and do not propose or anticipate any specific development proposals or infrastructure construction. Therefore, these amendments will not result in any impacts that were not addressed in the General Plan EIR.

d) **Less than Significant Impact.** Future housing development would result in new sources of lighting. Typical light sources from a single-family home would include outdoor security lighting. Multiple-family residential developments would generally include outdoor security lighting and parking lot lights, depending on the type of development. Future housing development will be required to conform to the lighting standards outlined in the City's Development Code (19.20-14 Property Development Standards). Title 19 of the of the City's Municipal Code requires that all exterior lighting shall be shielded or recessed so that direct glare and reflections are constrained within the boundaries of the parcel, and shall be stationary and deflected away from all adjacent properties and public streets or rights-of-way. Pursuant to these standards, day and nighttime views will not be adversely affected because lighting will be appropriately shielded and glare will be minimized. New development will be evaluated during the City's standard design and environmental review processes to ensure that future development complies with these standards. With implementation of existing standards and procedures, impacts from light and glare will be less than significant.

4.2 - AGRICULTURAL RESOURCES

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. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220 (g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

a) **No Impact.** No land in the City of San Bernardino is designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance according to the California

Department of Conservation, Division of Land Resource Protection.[5] No Impact would occur.

b) **No Impact.** Implementation of the proposed General Plan Amendments will not conflict with existing zoning for agricultural use or a Williamson Act contract. According to the California Department of Conservation, no land in the City is under a Williamson Act contract.[6] Furthermore, the City has no agricultural zoning districts. No impact would result.

c) **No Impact.** No properties in the City are zoned for forest land, timberland, or Timberland Production as defined by Public Resources Code Section 12220(g) as land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. No impact will occur.

d) **No Impact.** The City is bounded to the north by the San Bernardino National Forest. There are no proposed land use changes associated with the project that would affect areas designated as open space in the northern portion of the planning area. No new development would be permitted as a result of this project than would otherwise be permitted under the existing General Plan. Therefore, there will be no loss of forest land or conversion of forest land as a result of implementation of the proposed General Plan Amendments.[7]

e) **No Impact.** There are no agricultural operations within the City and no changes are proposed that would affect forest land. No impact related to the conversion of agricultural or forest lands would occur.

[5] California Department of Conservation. Farmland Mapping and Monitoring Program. San Bernardino County Important Farmland. 2010. ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/sbd10_so.pdf [November 25, 2013]

[6] California Department of Conservation. Agricultural Preserves 2004: Williamson Act Parcels, San Bernardino County, California. ftp://ftp.consrv.ca.gov/pub/dlrp/wa/sanbernardino_so_12_13_WA.pdf [November 25, 2013]

[7] California Department of Forestry and Fire Protection. Statewide Land Cover Map. http://frap.fire.ca.gov/data/frapgismaps-landcover2006_download.php 2006.

4.3 - AIR QUALITY

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:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
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?	☐	☐	☐	☒

a) **No Impact.** The City of San Bernardino is located within the South Coast Air Basin (Basin) under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD and the Southern California Association of Governments (SCAG) are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the basin. The AQMP is a series of plans adopted for the purpose of reaching short- and long-term goals for those pollutants for which the basin is designated as a "nonattainment" area because it does not meet federal and/or State Ambient Air Quality Standards (AAQS). To determine consistency between the project and the AQMP, the project must comply with all applicable SCAQMD rules and regulations, comply with all proposed or adopted control measures, and be consistent with the growth forecasts utilized in preparation of the Plan.

A significant impact could occur if the proposed project conflicts with or obstructs implementation of the South Coast Air Basin 2012 AQMP. Conflicts and obstructions that hinder implementation of the AQMP can delay efforts to meet attainment

deadlines for criteria pollutants and maintaining existing compliance with applicable air quality standards. Pursuant to the methodology provided in Chapter 12 of the 1993 SCAQMD CEQA Air Quality Handbook, consistency with the South Coast Air Basin 2012 AQMP is affirmed when a project: 1) does not increase the frequency or severity of an air quality standards violation or cause a new violation and 2) is consistent with the growth assumptions in the AQMP. Consistency review is presented below.

1. The project (including potential future housing development facilitated by Housing Element policy on proposed opportunity sites) implements land use policy previously analyzed in the General Plan EIR. No changes to land use of intensity are proposed. Thus, no impacts beyond those previously identified will result from Housing Element adoption and implementation. No new development is associated with the General Plan Amendments proposed pursuant to SB 244.

2. The CEQA Air Quality Handbook indicates that consistency with AQMP growth assumptions must be analyzed for new or amended General Plan elements, Specific Plans, and "significant projects." Significant projects include airports, electrical generating facilities, petroleum and gas refineries, designation of oil drilling districts, water ports, solid waste disposal sites, and off-shore drilling facilities. The project consists of a General Plan Amendment to update the proposed 2014-2021 Housing Element and addition of Appendix 16 to the General Plan to comply with SB 244; therefore, consistency analysis is required.

The Housing Element identifies vacant and underutilized sites that can accommodate future residential development pursuant to existing land use policy. The identified sites could result in approximately 14,003 new dwelling units and 47,890 new residents (14,003 dwelling units at 3.42 persons per household). SCAG provides population projection estimates in five-year increments from 2005 to 2035. According to the latest growth forecast (2012), SCAG estimates that the City would have a population of 261,400 and the County would have a population of 2,750,000 in 2035.[8] SCAG growth projections are utilized as the basis for both the Regional Transportation Plan (RTP) and the AQMP. Build-out of the General Plan would accommodate approximately 95,664 dwelling units for a population of 319,241 persons (General Plan Land Use Chapter), slightly higher than projected by SCAG, and thus provides sufficient residential land uses to accommodate growth projections for the City. In addition, the proposed Housing Element and identified sites are projected to meet the City's allocated RHNA, which is a function of the City's projected long-term growth. Therefore, by providing sites for housing sufficient to achieve the RHNA, the Housing Element is contributing in the short term toward consistency with long-term growth projections and the 2012 AQMP. The proposed Housing Element does not propose densities higher than already permitted in the General Plan (which were utilized in preparation of the 2012 RTP); thus, implementation will not result in an increase in

[8] Southern California Association of Governments. Adopted Growth Forecast. http://rtpscs.scag.ca.gov/Documents/2012/final/SR/2012fRTP_GrowthForecast.pdf [November 25, 2013]

population and households over that contemplated in the RTP and AQMP. These increases are within the growth assumptions estimated by SCAG and therefore would not result in a conflict with or obstruction of the AQMP. No new development is associated with the General Plan Amendments proposed pursuant to SB 244. These amendments furthermore would have no growth-inducing impacts as the unincorporated disadvantaged communities identified are already developed at intensities consistent with General Plan policy.

Based on the consistency analysis presented above, the proposed project will not conflict with the AQMP; no impact will occur.

b) **Less than Significant Impact.** Because the proposed Housing Element and General Plan Amendments pursuant to SB 244 do not authorize any development project or land altering activity that would involve construction of new or redeveloped housing or any other development project, these amendments will not result in any direct emissions that could contribute to an existing or potential violation of an air quality standard. The General Plan Amendments would have no effect on rules and procedures governing assessment or control of air pollutant emissions.

The proposed General Plan Amendments will not directly result in construction of any development or infrastructure; however, future residential development supported by the policies of the updated Housing Element will result in short-term criteria pollutant emissions. Short-term criteria pollutant emissions will occur during site preparation, grading, building construction, paving, and painting activities associated with new development. Emissions will occur from use of equipment, worker, vendor, and hauling trips, and disturbance of onsite soils (fugitive dust). Pursuant to CEQA, short-term, construction-related emissions will be analyzed on a project-specific basis. Mitigation will be applied, where necessary. Such mitigation typically includes requirements for use of low-VOC paints, installation of diesel particulate filters on older construction equipment, and limitations on hauling distances and/or daily trips.

To address operational emissions from a typical development project, an air quality modeling analysis is typically performed to determine if a project could regionally or locally cause a violation of any air quality standard. Using the California Emissions Estimator Model (CalEEMod), long-term emissions from development of the potential Housing Element opportunity sites were modeled (see Appendix A, Air Quality Modeling Data). The analysis of operational emissions does not take into consideration the reduction of emissions from the demolition of existing land uses on the identified underutilized site. Table 6 (Housing Element Sites Operational Daily Emissions) summarizes the operational daily emissions. There are no established daily emissions thresholds for program-level environmental analysis. Analysis of program-level air quality impacts are assessed through consistency with the AQMP and identification of policies, regulations, and rules that will reduce pollutant emissions from future development projects. Since these emissions do not account for the net change in emissions from the demolition of existing land uses on the underutilized site, the emissions presented are a conservative or worst-case estimate. The following emissions summary is provided solely for disclosure purposes.

Table 6
Housing Element Sites Operational Daily Emissions (lbs/day)

Source	ROG	NOx	CO	SO2	PM_{10}	$PM_{2.5}$
Summer						
Area Sources	863.51	69.36	5,100.78	11.26	571.98	571.80
Energy Demand	10.85	92.75	39.47	0.59	7.50	7.50
Mobile Sources	357.85	940.18	4,105.42	13.82	938.09	262.09
Summer Total	**1,232.21**	**1,102.28**	**9,254.66**	**25.67**	**1,517.57**	**841.39**
Winter						
Area Sources	863.51	69.36	5,100.78	11.26	571.98	571.80
Energy Demand	10.85	92.75	39.47	0.59	7.50	7.50
Mobile Sources	367.68	988.54	4,042.29	13.12	938.14	262.13
Winter Total	**1,242.04**	**1,150.64**	**9,182.53**	**24.97**	**1,517.62**	**841.43**

Any future proposed development project would be subject to SCAQMD's rules and regulations. The City of San Bernardino General Plan Natural Resources and Conservation Chapter's Air Quality section includes goals and policies that require analysis of air quality impacts, encourage mixed-use development, pedestrian-oriented design, and transit use to reduce pollutant emissions. No land use changes or changes in intensity are proposed as part of the proposed project. With application of SCAQMD rules and the General Plan Air Quality goals and policies, no new or more significant impacts relative to air quality standards would result from implementation of the General Plan Amendments beyond those analyzed in the General Plan EIR. Because the proposed General Plan Amendments are consistent with the AQMP (see Section 4.3.a) and future development projects supported by the proposed project will be subject to environmental review to ensure that daily criteria pollutant thresholds will not be exceeded, impacts will be less than significant.

c) **Less than Significant Impact.** SCAQMD has prepared an Air Quality Management Plan to set forth a comprehensive and integrated program that will lead the Basin into compliance with the federal 24-hour $PM_{2.5}$ air quality standard, and to provide an update to the SCAQMD's commitments toward meeting the federal 8-hour ozone standards. The Basin is currently in non-attainment for State and Federal criteria pollutants ozone, nitrogen dioxide and fine particulate matter ($PM_{2.5}$ and PM_{10}).[9]

New development facilitated by the Housing Element update (pursuant to existing General Plan land use policy) will be required to comply with SCAQMD rules and regulations aimed at reducing construction-related pollutant emissions, including fugitive dust and other particulates, as well as reactive organic compounds and other ozone precursors found in paints and other coatings. Considering that the proposed General Plan Amendments are consistent with General Plan land use policy and the

[9] United States Environmental Protection Agency. The Green Book Nonattainment Areas for Criteria Pollutants. www.epa.gov/oar/oaqps/greenbk/index.html [May 29, 2013]

breadth of existing standards and regulations, implementation of the proposed project would not change or otherwise interfere with the regional pollutant control strategies of the AQMP. The project's impact on cumulative levels of regional ozone or particulates is therefore less than significant.

d) **Less than Significant Impact.** Common sensitive receptors include children under age 14, the elderly over age 65, athletes, and people with cardiovascular and chronic respiratory diseases. The project promotes development of housing that could likely accommodate children and the elderly; however, the proposed Housing Element update does not authorize construction or redevelopment of any housing units. The proposed General Plan amendments associated with Disadvantaged Unincorporated Communities do not change any applicable land use designations and do not propose or anticipate any specific development proposals or infrastructure construction. Through its standard development review process that includes review pursuant to State CEQA statutes and guidelines, the City will ensure that any future development projects developed pursuant to the proposed General Plan Amendments provide adequate protection for residents from any local air pollution sources. Project impacts on sensitive receptors would be less than significant.

e) **No Impact.** Residential land uses typically do not create objectionable odors. No new odor sources would result from adoption of the proposed Housing Element and General Plan Amendment because it does not authorize construction of any new housing project, redevelopment of any existing property, or any particular infrastructure construction project. No impact will occur.

4.4 - BIOLOGICAL RESOURCES

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

a) **No Impact.** Much of the City of San Bernardino has undergone extensive disturbance by agricultural and urban land uses, and therefore, supports a decreased diversity of plant and animal life. However, several sensitive biological areas do exist. These areas are closely associated with the Santa Ana River and its tributaries and with the aquatic and woodland communities of the San Bernardino Mountains. According to the USFWS, the City of San Bernardino falls within the Critical Habitat of the endangered San Bernardino Merriam's kangaroo rat (Dipodomys mirriami parvus), endangered Southwestern willow flycatcher (Empidonax traillii extimus) and threatened Santa Ana sucker (Catostomus santaanae).[10] These designated critical habitat areas are primarily located along the Santa Ana River, City Creek, Cajon Creek Wash and Lytle Creek Wash. Critical habitat for the San Bernardino Merriam's kangaroo rat is located in the far northwest corner of the City in proximity to proposed Housing Element opportunity sites. Critical habitat for the San Bernardino Merriam's kangaroo rat and the Santa Ana sucker also exists near the intersection of SR-330 and SR-210 in the northeast portion of the City in proximity to proposed Housing Element opportunity site locations. The San Bernardino General Plan EIR lists additional sensitive animal and plant species that are potentially present within the City and surrounding areas.[11]

Policies exist within the General Plan that require the protection of biological resources. The General Plan Natural Resources and Conservation Chapter identifies Biological Resource Management Areas (BRM) and contains policies related to the protection of biological resources. Policies 12.1.1-12.1.4 require that the City maintain current information regarding the status and location of sensitive species and communities, develop land in a manner that minimizes that impacts to sensitive biological resources, and require development in the BRM be subject to review by the Environmental Review Committee. Development within the BRM requires a report written by a qualified professional outlining the project's impact on sensitive species, any necessary mitigation measures, a mitigation monitoring program and a habitat restoration discussion

No changes are proposed to land use policy that would result in a different or more severe impact than previously concluded in the General Plan EIR. No construction projects are proposed as part of the proposed General Plan Amendments. All future development will be subject to individual CEQA review that will include assessment of any potential impacts to sensitive species and their habitat. The proposed project would, therefore, not have an adverse effect on any species identified as a candidate, sensitive, or special-status species in local or regional plans or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

b) **No Impact.** Much of the City of San Bernardino has undergone extensive disturbance by agricultural and urban land uses, and therefore, supports a decreased diversity of plant and animal life. However, sensitive biological areas do exist along several of the City's riparian corridors. The Santa Ana River, City Creek, Little Creek Wash, and Cajon

[10] United States Fish and Wildlife Service. Critical Habitat Portal. http://criticalhabitat.fws.gov/crithab/ (November 25, 2013}

[11] City of San Bernardino General Plan EIR. Chapter 5: Environmental Analysis. Table 5.3-1, Table 5.3-2. [2005]

Creek Wash contain potential habitat for Federal threatened and endangered species.[12] The Housing Element opportunity sites are located throughout the City with some of these sites located in close proximity to these riparian areas. The City's Development Code (Title 19, Chapter 20 of Municipal Code) states that development within 50 feet of a riparian corridor may be prohibited or restricted. Furthermore, any environmental constraints such as biological resources, riparian areas, or threatened or endangered species shall be subject to the submittal of appropriate reports prepared by qualified professionals which address the impacts, identify mitigation measures, and evaluate and ensure the adequacy of the specified mitigation measures.

No construction projects are proposed as part of the proposed General Plan Amendments. Any future development will be subject to individual CEQA review that will require assessment of potential impacts to biological resources, including riparian habitat that could support sensitive species. No changes are proposed to land use policy that would result in a different or more severe impact than previously concluded in the General Plan EIR. No additional impacts will occur.

c) **No Impact.** The USFWS National Wetlands Inventory does not provide any data for the City of San Bernardino.[13] However, the General Plan EIR states that the City contains three watercourses determined to be "waters of the U.S." as tributaries within the Santa Ana watershed. Potential USACE and CDFG jurisdictional waters and wetlands are also present along the Santa Ana River, Lytle Creek/Cajon Creek, the canyons and drainages in the foothills of the San Bernardino mountains, and the open flood control channels that traverse the City.[14]

Section 401 of the CWA requires an applicant to obtain certification for any activity that may result in a discharge of a pollutant into waters of the United States. As a result, proposed fill in waters and wetlands requires coordination with the appropriate State Regional Water Quality Control Board (RWQCB) that administers Section 401 and provides certification. The RWQCB also plays a role in review of water quality and wetland issues, including avoidance and minimization of impacts. Section 401 certification is required prior to the issuance of a Section 404 permit, as discussed below.

Under Section 404 of the CWA the U.S. Army Corps of Engineers (ACOE) has jurisdiction over *Wetlands* and *Waters of the United States*. Permitting of activities that could discharge fill or dredge materials or otherwise adversely modify wetlands or other waters of the United States and associated habitat is required. Permits authorized by ACOE under the Act typically involve mitigation to offset unavoidable impacts on wetlands and other waters of the United States in a manner that achieves no net loss of wetland acres or values.

[12] United States Fish and Wildlife Service. Critical Habitat Portal. http://criticalhabitat.fws.gov/crithab/ [November 25, 2013]
[13] U.S. Fish & Wildlife Service. National Wetlands Inventory. http://www.fws.gov/wetlands/Wetlands-Mapper.html [November 25, 2013]
[14] City of San Bernardino General Plan EIR. Chapter 5: Environmental Analysis. [2005]

The California Department of Fish and Wildlife (CDFW), through provisions of the Fish and Game Code Sections 1600-1603, is empowered to issue agreements (Streambed Alteration Agreements) for projects that would "divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake" (Fish and Game Code Section 1602[a]). Streams and rivers are defined by the presence of a channel bed, banks, and intermittent flow. The limits of CDFW jurisdiction are also based on riparian habitat and may include wetland areas that do not meet US Army Corps of Engineers (ACOE) criteria for soils and/or hydrology (e.g., where riparian woodland canopy extends beyond the banks of a stream away from frequently saturated soils).

Future housing development will be subject to environmental review pursuant to CEQA and the City's local development review procedures. This includes biological resources. Any project impacts to streams or wetlands are subject to Federal Section 401 and/or 404 permitting and State Section 1600 stream alteration requirements. These regulations require identification and mapping of any wetland resources and implementation of appropriate mitigation as discussed above to ensure no net loss of wetland area or values. No changes are proposed to land use policy that would result in a different or more severe impact than previously concluded in the General Plan EIR and thus no additional impacts would occur.

d) **No Impact.** The City of San Bernardino is mostly developed, with most of the land converted from open space areas to commercial, industrial, residential, and recreational uses. Major wildlife movement within the City is not likely to occur. According to the General Plan EIR, regional wildlife movement in an east-west orientation in the mountains and along the undeveloped foothills northeast of I-215 and north of SR 30/I-210 may still provide viable wildlife corridors. Wildlife corridors within the City and SOI areas are most likely limited to the northern undeveloped portions of the City. Cajon Canyon and Lytle Creek Wash may also serve as potential movement corridors, but to a lesser extent, as portions of the channels have been modified by aggregate extraction activities. East-west corridors may exist along the Santa Ana River although large portions of the wash have also been modified for flood control and water conservation facilities, and by active aggregate mining activities. Local wildlife corridors are likely to occur within the canyons and washes in the foothills and mountains north of the City.[15] Future development would not be authorized to disrupt the hydrologic function of any waterway pursuant to local, state, and federal laws prohibiting loss or alteration of these resources; therefore, movement of wildlife and aquatic species through local riparian corridors would not be substantially impacted by future housing development. No impacts will occur.

e) **No Impact.** The General Plan Natural Resources and Conservation Chapter contains goals and policies intended to protect biological resources. Implementation of the proposed General Plan Amendments would not authorize construction. Any future projects will be subject to individual CEQA review.

[15] City of San Bernardino General Plan EIR. Chapter 5: Environmental Analysis. [2005]

City Ordinance MC-1027, 9-8-98 and MC-682, 11-6-89 (Municipal Code, Title 15, Chapter 15.34) prohibits the removal and/or destruction of more than five trees within any thirty-six month period from a development site or parcel of property without first being issued a permit from the Development Services Department. Per the ordinances, 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.

A number of General Plan policies are in place to protect biological resources, as outlined below. Given existing General Plan policies are in place and that no land use changes are proposed, no impacts would occur.

General Plan Natural Resources and Conservation Chapter Policies

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, as shown on Figure NRC-1.

Policy 12.1.2 Site and develop land uses in a manner that is sensitive to the unique characteristics of and that minimizes the impacts upon sensitive biological resources.

Policy 12.1.3 Require that all proposed land uses in the "Biological Resource Management Area" (BRM), Figure NRC-2, 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, evaluating 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;
h. Bridges and pipelines when supports are not in significant conflict with corridor resources.

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;
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 12.3.1 **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 Prevent further loss of existing stands of Santa Ana River Wooly-star (Eriastrum densifolium sanctorum) and Slender-horned Centrostegia (Centrostegia leptoceras).

f) **No Impact.** According to the Conservation Plans and Agreements Database no Habitat Conservation Plans or Natural Community Conservation Plans apply within the planning area.[16] No impact would occur.

[16] U.S. Fish & Wildlife Service. Conservation Plans and Agreements Database. http://ecos.fws.gov/conserv_plans/PlanReportSelect?region=8&type=HCP [November 26, 2013]

4.5 - CULTURAL RESOURCES

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☒	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

a) **Less Than Significant Impact.** The National Register of Historic Places lists six sites in the City of San Bernardino. The NRHP lists the following sites: 1) Atchison, Topeka, and Santa Fe Railway Passenger and Freight Depot (1170 W. 3rd St.); 2) The California Theater (562 W. 4th St.); 3) Crowder Canyon Archeological District (Address Restricted); 4) San Bernardino County Court House (351 N. Arrowhead Ave.); 5) US Post Office--Downtown Station (390 W. 5th St.); 6) Wigwam Village No. 7 (2728 Foothill Blvd.).[17] The California Office of Historic Preservation lists the Stephens and Bobbitt Mortuary/Victory Chapel on the State Register of Historic Places as well as four State Landmarks including The Arrowhead, Stoddard-Waite Monument, Site of Mormon Stockade and the Mormon Trail Monument. None of the Housing Element opportunity sites are located on a property recognized by the National Register of Historic Places or the State Office of Historic Preservation. With the implementation of the existing General Plan policies to preserve properties with historic potential and CEQA regulations, less than significant impacts to historic resources would occur from implementation of the project and any construction where substantial historic resources may have not yet been identified.

[17] National Register of Historic Places. 1966-2012 Listed and Removed Properties. San Bernardino. http://www.nps.gov/nr/research/ [November 26, 2013]

Applicable General Plan Historical and Archaeological Chapter Policies

Policy 11.1.3 Consider, within the environmental review process, properties that may have become historically significant since completion of the 1991 Historic Resources Reconnaissance Survey.

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.

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.

b) **Less Than Significant Impact.** Although the City of San Bernardino is highly urbanized, the presence of significant subsurface archaeological resources is always a possibility in areas where only surface inspections have taken place. Furthermore, the San Manuel Band of Mission Indians traversed and inhabited a territory that spanned the San Bernardino Mountains, valley and adjoining desert lands.[18] The General Plan EIR Archaeological Sensitivities Map (Figure 5.4-2) indicates areas of high archaeological sensitivity within San Bernardino. The proposed Housing Element Opportunity Sites located along the northern boundary of the City as well as sites located between I-215 and Kendall Drive north of SR-210 are located within areas of concern for archaeological resources. Implementation of the proposed Housing Element, pursuant to existing General Plan land use policy, could result in the development of vacant land in these areas. Ground-disturbing activities associated with subsequent development of land within the City could unearth previously unknown archaeological resources. Therefore, implementation of the proposed Housing Element has the potential to disturb or destroy undocumented archaeological resources. The proposed General Plan amendment associated with Disadvantaged Unincorporated Communities is for informational purposes only and does not propose or anticipate any specific development proposals or infrastructure construction.

General Plan policies require the development of mitigation measures for projects located in archaeologically sensitive areas. The General Plan EIR implemented Mitigation Measure GP 5.4-2 requiring project applicants to provides studies documenting the presence or absence of archeological and/or paleontological resources. Where resources are identified, detailed mitigation plans, monitoring programs, and recovery and preservation plans shall be included. Adherence to General Plan policies, General Plan EIR Mitigation Measure GP 5.4-2, and CEQA guidelines where

[18] City of San Bernardino General Plan EIR. Section 5: Environmental Analysis, Native American History p.5.4-8. [2005]

archaeological or paleontological resources may be affected will reduce impacts to buried cultural resources. Impacts will be less than significant with existing General Plan EIR mitigation incorporated.

General Plan EIR Mitigation Measures:

GP 5.4-2 In areas of documented or inferred archaeological and/or paleontological resource presence, City staff shall require applicants for development permits to provide studies to document the presence/absence of such resources. On properties where resources are identified, such studies shall provide a detailed mitigation plan, including a monitoring program and recovery and/or in situ preservation plan, based on the recommendations of a qualified cultural preservation expert.

c) **Less than Significant Impact.** The City of San Bernardino is located on the Bunker Hill-San Timoteo Basin.[19] The City lies on a broad, gently sloping lowland that borders 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 San Bernardino Mountains, Shandin Hills, and other hilly areas are comprised predominantly of Mesozoic and older crystalline basement terrain. Paleontological resources are found in geologic strata conducive to their preservation, typically sedimentary formations. The alluvial deposits underlying the City are too young geologically to contain scientifically significant fossils in their original, undisturbed location and therefore are not considered paleontologically sensitive. Thus, paleontological resources are not likely to be uncovered during future development and implementation of the proposed project.[20]

In the event that paleontological materials are uncovered, General Plan EIR Mitigation Measure 5.4-2 is incorporated to ensure that uncovered resources are evaluated. Impacts to buried cultural resources will be less than significant with existing General Plan EIR mitigation incorporated.

d) **Less Than Significant Impact.** No known cemeteries or human burials have been identified on the Housing Element Opportunity Sites. However, it is possible that unknown human remains could be located in the area, and if proper care is not taken during future housing project construction completed pursuant to Housing Element policy, particularly during excavation activities, damage to or destruction of these unknown remains could occur. General Plan EIR Mitigation Measure GP 5.4-3 requires that the county coroner be contacted in the event of accidental discovery of human remains in any location other than a dedicated cemetery. Impacts to buried remains will be less than significant with existing General Plan EIR mitigation incorporated.

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[19] CIVILTEC Engineering Inc. Valley County Water District 2010 Urban Water Management Plan. June 2011.

[20] California Department of Conservation. Geologic Atlas of California. San Bernardino Regional Geologic Map 1:250,000. 1981. http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/googlemaps.aspx

General Plan EIR Mitigation Measure:

GP 5.4-3 In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps shall be taken:

There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the San Bernardino County Coroner is contacted to determine if the remains are prehistoric and that no investigation of the cause of death is required. If the coroner determines the remains to be Native America, then the coroner shall contact the Native American Heritage Commission within 24 hours, and the Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendent from the deceased Native American. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98; or

Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendation of the most likely descendant or on the property in a location not subject to further subsurface disturbances:

- The Native American Heritage Commission is unable to identify a most likely descendent or the likely descendant failed to make a recommendation within 24 hours after being notified by the commission; or
- The descendent identified fails to make a recommendation; or
- The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

4.6 - GEOLOGY AND SOILS

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☒	☐

a.i) **Less than Significant Impact.** The State of California Department of Conservation indicates that Alquist-Priolo Fault Hazard Zones are located in San Bernardino.[21] The San Andreas and San Jacinto faults traverse the City. In addition, San Bernardino is surrounded by several active fault zones including the following: Glen Helen, San Jacinto, Loma Linda Faults Cucamonga-Sierra Madre, Whittier-Elsinore, Rialto-Colton, Cleghorn Fault, Crafton, North Frontal, Banning, and Red Hill faults.

Many of the proposed Housing Element Opportunity Sites are located in close proximity to the San Andreas Fault Zone which traverses the northern border of the City. Since the San Andreas and San Jacinto faults area are designated as part of the State of California Alquist-Priolo Special Study Zones, site-specific geologic reports are required for development within these Zones to determine the precise location of and any required setbacks from any active faults. Human occupancy structures are prohibited within 50 feet of either side of an active fault.[22] The proposed Housing Element and General Plan amendments do not increase any risks associated with fault rupture, as no land use policy changes are proposed which would allow development where it was not previously permitted. No changes are proposed to General Plan policies in place to protect against earthquake hazards. Future housing development constructed pursuant to Housing Element policy would be subject to all applicable City, state, and local building regulations, including the California Building Code (CBC) seismic standards as approved by the City Building & Safety Division. Impacts would be less than significant.

a.ii) **Less than Significant Impact.** Ground shaking can vary greatly due to the variation in earth properties. The City is subject to strong ground shaking, as is the entirety of Southern California. As discussed above, the City is located within an Alquist-Priolo Earthquake Fault Zone and there are multiple active and potentially active fault zones in the region that could affect the project site. As with all properties in the seismically active Southern California region, all future projects would be susceptible to ground shaking during a seismic event and could expose people and structures to potentially medium to strong seismic ground motion. As such, all future projects could result in a potentially significant impact with respect to strong ground shaking.

All future, site-specific projects involving physical development of the property would be required to be in conformance with the Uniform Building Code (UBC) and other applicable standards. The proposed General Plan Amendments will have no impact as no physical improvements are proposed that would alter existing conditions. Nonetheless, as discussed above in Section VI(a)(i), all future projects would be designed and constructed in compliance with all applicable City and state codes and requirements, including those established in the California Code of Regulations, Title 24, Part 2, Volume 2. The CBC regulations are designed to protect building occupants and limit the damage sustained by buildings during seismic events. The General Plan Safety Chapter identifies seismicity as a key safety issue and contains the following goals and

[21] State of California Department of Conservation. Alquist-Priolo Earthquake Fault Zone Maps. http://www.quake.ca.gov/gmaps/ap/ap_maps.htm [May 30, 2013]
[22] City of San Bernardino General Plan. Chapter 10 Safety p.10-17. 2005.

policies to reduce seismic hazards within the City. Therefore, impacts will be less than significant.

General Plan Safety Chapter Policies

Policy 10.7.1 Minimize the risk to 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 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.

a.iii) **Less than Significant Impact.** Liquefaction is a phenomenon that occurs when soil undergoes transformation from a solid state to a liquefied condition due to the effects of increased pore-water pressure. This typically occurs where susceptible soils (particularly the medium sand to silt range) are located over a high groundwater table. Affected soils lose all strength during liquefaction and foundation failure can occur. San Bernardino is not mapped as an area susceptible to liquefaction.[23] However, the General Plan EIR indicates two general liquefaction zones identified within the regional area, "high" and "moderately high to moderate" zones based on past technical studies (Figure 5.5-6, Liquefaction Susceptibility). High zones are concentrated 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 zones delineate regional susceptibility; however, they can vary greatly due to groundwater level changes.[24]

Areas subject to liquefaction are identified in Figure S-5 (Liquefaction Susceptibility Map) in the General Plan Safety Chapter. Several of the proposed Housing Element Opportunity Sites located along the northern border of the City and certain portions of the DUCs are located in areas identified by the General Plan as having the potential for liquefaction. General Plan Safety Chapter policies listed below require that liquefaction potential at a site be determined prior to development and require the evaluation and reduction of potential impacts. In addition, appropriate measures that reduce the ground-shaking and liquefaction effects of earthquakes are identified in the California Building Code, including specific provisions for seismic design of structures. The project does not itself involve new construction in any area of the City. All future development projects will be subject to the City's standard environmental review

[23] California Department of Conservation, California Geological Survey. Information Warehouse. http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm
[24] City of San Bernardino General Plan EIR. Section 5 Environmental Analysis p.5.5-22. 2005.

process for evaluation of geologic hazards. Considering implementation of existing policies and standards, impacts associated with liquefaction or other ground failure will be less than significant.

Applicable General Plan Policies

Policy 10.7.2 Require geologic and geotechnical investigations for new development in areas adjacent to known fault locations and approximate fault locations as part of the environmental and/or development review process and enforce structural setbacks from faults identified through those investigations.

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.

Policy 10.7.5 Evaluate and reduce the potential impacts of liquefaction on new and existing lifelines.

a.iv) **Less than Significant Impact.** Landslides are mass movements of the ground that include rock falls, relatively shallow slumping and sliding of soil, and deeper rotational or transitional movement of soil or rock. In general, landslides are abundant in areas underlain by shale and siltstone bedrock materials. Slope stability studies of the San Bernardino planning area were conducted in 1974 and 1979 and include general descriptions of slope areas along with accompanying maps. Generalized slopes are subdivided into areas of low relief, areas of moderate relief, and areas of high relief. Generalized landslide susceptibility in the City is considered low to moderate. A combination of the generalized slope categories and the generalized landslide susceptibility areas results in two potentially hazardous zones.[25] These zones are mapped in Figure S-7 in the City of San Bernardino General Plan Safety Chapter. Opportunity sites located along the City's northern boundary and between I-215 and Kendall Drive north of I-210 are located within the generalized areas of landslide susceptibility.

Successful development in portions of the City subject to landslides requires detailed engineering analysis and continuous inspection during construction. During review of development and redevelopment proposals, the City requires surveys of geological conditions by state licensed engineering geologists and civil engineers when appropriate. Impacts will be less than significant with implementation of existing regulations and City review processes

b) **Less than Significant Impact.** Erosion is the condition in which the earth's surface is worn away by the action of water and wind. The project does not propose or authorize any particular housing development, infrastructure project, or other development activity or changes to land use policy. Little, if any, native topsoil is likely to occur at any of the Housing Element Opportunity Sites or DUCs located within the heavily

[25] City of San Bernardino General Plan. Chapter 10 Safety p.10-29. 2005.

urbanized areas of the City. Native topsoil may occur on the Housing Element Opportunity Sites and DUCs located along the City's northern boundary. However, most of the area has historically been developed. All future development projects are subject to environmental and engineering review, including assessment and mitigation of soil erosion. During construction activities of housing proposed pursuant to Housing Element policy, there is the potential to expose surficial soils to wind and water erosion during construction activities. Wind erosion is required to be minimized through soil stabilization measures required by South Coast Air Quality Management District (SCAQMD) Rule 403 (Fugitive Dust), such as daily watering. General Plan policies 10.5.4 and 13.2.10 require adequate erosion control to prevent contamination of waterways and canyon drainages. Water erosion will be prevented through the City's standard erosion control practices required pursuant to the California Building Code and the National Pollution Discharge Elimination System (NPDES), such as silt fencing or sandbags. Impacts related to soil erosion would be less than significant with implementation of existing regulations and General Plan policies.

Applicable General Plan Policies

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 13.2.10 Require that development in the City's watersheds incorporate adequate landscape and groundcover to prevent slope erosion and significant sedimentation of canyon drainages.

c) **Less than Significant Impact.** Impacts related to liquefaction and landslides are discussed above in Section 4.6.a. Lateral spreading is lateral displacement of gently sloping ground as a result of liquefaction in a shallow underlying deposit during an earthquake. Such movement can occur on slope gradients of as little as one degree. Lateral spreading typically damages pipelines, utilities, bridges, and structures. The City lies on a broad, gently sloping lowland that borders the southwest margin of the San Bernardino Mountains. The General Plan indicates that areas of liquefaction exist along the northern boundary of the City and in areas between I-10 and I-210. Thus, lateral spreading could occur in these areas.

According to the General Plan EIR, 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. Potential subsidence in this 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. Problems with ground subsidence have not been identified since the groundwater recharge program began. General Plan Figure S-6 identifies Potential Subsidence Areas within the City of San Bernardino. Housing Element Opportunity Sites and DUCs are located in these areas; however, General Plan Safety Chapter Policy

10.7.2 listed above and the CBC requires all new development to have a site-specific geology report prepared by a registered geologist or soils expert and submitted to the City, which would ensure impacts related to expansive soils would be evaluated on a project-by-project basis and mitigated as necessary. Compliance with the goals and policies of the General Plan and the Building Code would ensure potential impacts would be reduced to a less than significant level.

d) **Less than Significant Impact.** Expansion and contraction of volume can occur when expansive soils undergo alternating cycles of wetting (swelling) and drying (shrinking). During these cycles, the volume of the soil changes markedly and can cause structural damage to building and infrastructure if the potentially expansive soils were not considered in project design and construction. Compaction of loose soils and poorly consolidated alluvium occur as a result of strong seismic shaking. Amount of compaction may vary from a few inches to several feet and may be significant in areas of thick soil cover. Topsoil, recent alluvium and weathered bedrock are typically porous and may be subject to hydro-collapse; therefore, these materials can be unsuitable for the support of engineered fills and structures. The City is underlain by several different soil types; however, fine sand, fine sandy loam, sandy loam, coarse sandy loam, and loamy sand are dominant. Since loamy soils contain a percentage of clay these soils are considered potentially expansive. The CBC requires that a soil and geological report be prepared for any development, including future potential housing. Presence of expansive soils and identification of measures to eliminate this constraint (such as removal and replacement with suitable engineered materials) will be determined through site-specific geotechnical evaluations to be conducted as part of the City's routine development review procedures. Such routine procedures will apply to all future development projects. As such, potential impacts associated with expansive soils would be less than significant.

e) **Less than Significant Impact.** The City of San Bernardino is served by the San Bernardino Municipal Water Department Water Reclamation Plant (WRP). The WRP provides wastewater treatment services for the City of San Bernardino, Loma Linda, East Valley, San Bernardino International Airport, Patton State Hospital, and unincorporated San Bernardino County areas. According to the General Plan Utilities Chapter, the City permits the limited use of septic tanks for developments within its boundaries; typically in older portions of the City or on large lot residential developments. Any new septic systems must comply with the Santa Ana Regional Water Quality Control Board's minimum lot size requirements (currently one-half acre). According to the General Plan, most housing units are connected to the public sewer (57,007). However, 1,620 units are connected to a septic tank or cesspool, and 177 units achieved sewage disposal through other means. Few parcels continue to rely on septic systems both within the City and the unincorporated areas. Muscoy residents in DUC 1 rely upon existing septic system for their wastewater disposal needs. Parcels in the Muscoy area requiring sewer service have been allowed to connect to existing community facilities. The northern portion of DUC 6 contains neighborhoods that are served by leach and septic systems. Other individual residential development may still occur in the City that would utilize individual septic systems. General Plan policy directs the City to 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. These developments and their septic systems would be subject to the review and requirements of the City of San Bernardino (or County of San Bernardino, as applicable) septic system design and operation as well as the Santa Ana Regional Water Quality Board requirements to ensure that the system and soils would allow for adequate percolation of septic treated wastewater. With the implementation of existing septic system regulations, impact will be less than significant.

Applicable General Plan Policies

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.

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.

4.7 - GREENHOUSE GAS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

a) **Less than Significant Impact.** Climate change is the distinct change in measures of climate for a long period of time. Climate change is the result of numerous, cumulative sources of greenhouse gas emissions all over the world. Natural changes in climate can be caused by indirect processes such as changes in the Earth's orbit around the Sun or direct changes within the climate system itself (i.e. changes in ocean circulation). Human activities can affect the atmosphere through emissions of greenhouse gases (GHG) and changes to the planet's surface. Human activities that produce GHGs are the burning of fossil fuels (coal, oil and natural gas for heating and electricity, gasoline and diesel for transportation); methane from landfill wastes and raising livestock, deforestation activities; and some agricultural practices.[26]

Greenhouse gases differ from other emissions in that they contribute to the "greenhouse effect." The greenhouse effect is a natural occurrence that helps regulate the temperature of the planet. The majority of radiation from the Sun hits the Earth's surface and warms it. The surface in turn radiates heat back towards the atmosphere, known as infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping back into space and re-radiate it in all directions. This process is essential to supporting life on Earth because it warms the planet by approximately 60° Fahrenheit. Emissions from human activities since the beginning of the industrial revolution (approximately 250 years ago) are adding to the natural greenhouse effect by increasing the gases in the atmosphere that trap heat, thereby contributing to an average increase in the Earth's temperature. Greenhouse gases occur naturally and from human activities. Greenhouse gases produced by human activities include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Since 1750, it is estimated that the concentrations of carbon dioxide, methane, and nitrous oxide in the atmosphere have increased over 36 percent, 148 percent, and 18 percent, respectively, primarily due to human activity. Emissions of greenhouse gases affect the atmosphere directly by changing its chemical composition

[26] United States Environmental Protection Agency. *Frequently Asked Questions About Global Warming and Climate Change. Back to Basics.* April 2009.

while changes to the land surface indirectly affect the atmosphere by changing the way the Earth absorbs gases from the atmosphere.

No new development is associated with the General Plan Amendments proposed to address SB 244. Furthermore, these amendments would have no growth-inducing impacts as the unincorporated disadvantaged communities identified are already developed at intensities consistent with General Plan assumptions. As such, these amendments would not generate greenhouse gas emissions either directly or indirectly.

GHG emissions associated with potential future development on Housing Element Opportunity Sites were quantified utilizing the California Emissions Estimator Model (CalEEMod) version 2013.2.2 to determine if the project could have a cumulatively considerable impact related to greenhouse gas emissions (see Appendix A, Air Quality Modeling Data). This data is presented for informational purposes, as no changes to permissible development densities or locations would occur as part of the Housing Element update. No new development or changes to land use policy are associated with the General Plan Amendments proposed pursuant to SB 244. A numerical threshold for determining the significance of greenhouse gas emissions in the South Coast Air Basin has not officially been adopted by the SCAQMD. Individual projects may be required to have a greenhouse gas emissions inventory prepared to determine if individual projects exceed applicable screening or impact thresholds and would thus potentially contribute substantially to climate change and associated impacts. A summary of short- and long-term emissions and the analysis for each are included below.

Short-Term Emissions

Future development projects will result in short-term greenhouse gas emissions from construction. Greenhouse gas emissions will be released by equipment used for demolition, grading, paving, and other building construction activities. GHG emissions will also result from worker and vendor trips to and from project sites and from demolition and soil hauling trips. Construction activities are short term and cease to emit greenhouse gases upon completion, unlike operational emissions that are continuous year after year until operation of the use ceases. Because of this difference, SCAQMD recommends that construction emissions be amortized over a 30-year operational lifetime. This normalizes construction emissions so that they can be grouped with operational emissions in order to generate a precise project GHG inventory.

Typically, construction-related GHG emissions contribute insubstantially (less than one percent) to a project's annual greenhouse gas emissions inventory and mitigation is not effective in reducing a project's overall contribution to climate change. Implementation of AB32 and SB375 through California Air Resources Board's (ARB) Scoping Plan and SCAG's RTP/SCS are designed to achieve the required reduction in greenhouse gas emissions, as is further discussed in Section 4.7.b. With the cooperation and support of these plans, short-term climate change impacts due to future construction activities will not be significant.

Long-Term Emissions

Future development projects will result in continuous GHG emissions from mobile, area, and other operational sources. Mobile sources, including vehicle trips to and from development projects, will result primarily in emissions of CO_2, with minor emissions of CH_4 and N_2O. The most significant GHG emission from natural gas usage will be methane. Electricity usage by future development and indirect usage of electricity for water and wastewater conveyance will result primarily in emissions of carbon dioxide. Disposal of solid waste will result in emissions of methane from the decomposition of waste at landfills coupled with CO_2 emission from the handling and transport of solid waste. These sources combine to define the long-term greenhouse gas inventory for typical development projects.

Table 7 (Greenhouse Gas Emissions Inventory) summarizes annual operational greenhouse gas emissions associated with potential future development on Housing Element Opportunity Sites. There is no adopted threshold promulgated by SCAQMD or CARB for assessment of program-level GHG emissions. Analysis of program-level climate change impacts are assessed through consistency with State and regional greenhouse gas emissions reduction plans is provided in Section 4.7.b.

Table 7
Housing Element Sites Greenhouse Gas Emissions Inventory

Source	GHG Emissions (MT/YR)			
	CO2	CH4	N2O	TOTAL*
Area	4,199.39	5.37	0.06	4,329.28
Energy	45,073.86	1.55	0.60	45,292.84
Mobile	157,372.34	5.43	0.00	157,486.40
Waste	2,632.27	155.56	0.00	5,899.08
Water	5,517.71	29.97	0.75	6,380.09
TOTAL	**214,795.57**	**197.89**	**1.41**	**219,387.68**

Source: MIG | Hogle-Ireland 2013
* MTCO2E/YR

Future housing and mixed-use development will occur on vacant land as well as replace existing underutilized uses. The analysis of operational emissions does not take into consideration the reduction of emissions from the demolition of existing land uses on the identified underutilized Housing Element Opportunity Sites. Therefore, actual net emissions, accounting for the reduction in emissions from removal of existing uses, would be lower than the emissions presented in Table 7. These reductions would be quantified on an individual project basis based on existing site conditions and land uses at the time of redevelopment. In addition, Table 7 does not account for regulatory and project design features required as mitigation that may reduce GHG emissions for each individual project. GHG emissions reducing design requirements identified in the CBC include installation of low-flow fixtures, compliance with State landscape irrigation requirements, and minimum 50 percent recycling during construction and operation. Furthermore, GHG emissions will be evaluated during the City's standard environmental review process as required by CEQA to determine if GHG emissions from individual projects will require mitigation. No land use changes are proposed as part of this project. Since future development projects supported by the proposed

Housing Element will be required to be consistent with State and regional greenhouse gas reduction plans (see Section 4.7.b), they will be subject to environmental review to ensure that any interim or adopted project-level greenhouse emissions threshold is not exceeded, and is subject to regulations requiring reduction of greenhouse gas emissions. Impacts will be less than significant.

b) **Less than Significant Impact.** Significant impacts would occur if the proposed project conflicted with or interfered with implementation of any existing GHG reduction plan that is projected to achieve greenhouse gas reduction targets. The two primary reduction plans are California Air Resources Board (CARB) Scoping Plan and SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) as discussed below.

California Air Resources Board Scoping Plan (AB32)
The CARB Scoping Plan is the comprehensive plan to reach the GHG reduction targets stipulated in AB32. The key elements of the plan are to expand and strengthen energy efficiency programs, achieve a statewide renewable energy mix of 33 percent, develop a cap-and-trade program with other partners in the Western Climate Initiative (includes seven states in the United States and four territories in Canada), establish transportation-related targets, and establish fees.[27] CARB estimates that implementation of these measures will reduce GHG emissions in the State by 136 MMTCO2E by 2020; therefore, implementation of the Scoping Plan will meet the 2020 reduction target of 80 MMTCO2E, which is a reduction of 27 percent compared to the projected business as usual 507 MMTCO2E.

Many of the strategies identified in the Scoping Plan are not applicable at the General Plan or project level, such as long-term technological improvements to reduce emissions from vehicles. Some measures are applicable and supported by the project, such as provision of mixed-use developments. Finally, while some measures are not directly applicable, the project would not conflict with their implementation. Reduction measures are grouped into 18 action categories, as follows:

1. **California Cap-and-Trade Program Linked to Western Climate Initiative Partner Jurisdictions.** Implement a broad-based California cap-and-trade program to provide a firm limit on emissions. Link the California cap–and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California.[28] Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms. These programs involve capping emissions from electricity generation, industrial facilities, and broad-scoped fuels. The project does not involve any such uses.

2. **California Light-Duty Vehicle Greenhouse Gas Standards.** Implement adopted Pavley standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-

[27] California Air Resources Board. Climate Change Scoping Plan. December 2008.
[28] California Air Resources Board. California GHG Emissions – Forecast (2002-2020). October 2010.

term climate change goals. This is not applicable as this is a statewide measure establishing vehicle emissions standards.

3. **Energy Efficiency.** Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities). The Housing Element promotes energy-efficient building design, as well as implementation of existing building and other codes regulating minimum energy, water, and waste efficiency consistent with 2011 CALGREEN requirements and would thus be consistent and not interfere with this program. The General Plan Amendments to comply with SB 244 do not pertain to energy efficiency and would not interfere with any existing energy efficiency programs.

4. **Renewables Portfolio Standards.** Achieve 33 percent renewable energy mix statewide by 2020. This establishes the minimum statewide renewable energy mix and is not applicable at a City level or below for implementation. The proposed General Plan Amendments would not interfere with the implementation of this program.

5. **Low Carbon Fuel Standard.** Develop and adopt the Low Carbon Fuel Standard. This is not applicable to a city as this establishes reduced carbon intensity of transportation fuels.

6. **Regional Transportation-Related Greenhouse Gas Targets.** Develop regional greenhouse gas emissions reduction targets for passenger vehicles. As is detailed below, the proposed General Plan Amendments would not conflict with and would support the implementation of SCAG's RTP/SCS to achieve the required GHG reduction goals by 2020 and 2035 based on consistency with growth projections. The San Bernardino General Plan includes policies to reduce vehicle miles traveled by encouraging mixed-use, infill, an improved jobs-housing balance, and alternative modes of transportation.

7. **Vehicle Efficiency Measures.** Implement light-duty vehicle efficiency measures. This is not applicable to a city as this identifies measures such as minimum tire-fuel efficiency, lower friction oil, and reduction in air conditioning use.

8. **Goods Movement.** Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities. Identifies measures to improve goods movement efficiencies such as advanced combustion strategies, friction reduction, waste heat recovery, and electrification of accessories. The proposed General Plan Amendments will not result in the development of uses that will involve the movement of goods and therefore would not interfere with eventual implementation.

9. **Million Solar Roofs Program.** Install 3,000 megawatts of solar-electric capacity under California's existing solar programs. Sets goal for use of solar systems

throughout the state. The proposed General Plan Amendments would not interfere with but instead would directly support installation of alternative energy sources through City policies and programs.

10. **Medium- and Heavy-Duty Vehicles.** Adopt medium-duty (MD) and heavy-duty (HD) vehicle efficiencies. Aerodynamic efficiency measures for HD trucks pulling trailers 53-feet or longer that include improvements in trailer aerodynamics and use of rolling resistance tires were adopted in 2008 and went into effect in 2010.[29] Future, yet to be determined improvements, includes hybridization of MD and HD trucks. The proposed General Plan Amendments will not result in development of industrial uses and therefore would not interfere with implementation of this program.

11. **Industrial Emissions.** Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries. These measures are applicable to large industrial facilities (> 500,000 MTCO2E/YR) and other intensive uses such as refineries. The proposed General Plan Amendments will not result in the development of these facilities and therefore would not interfere with implementation.

12. **High Speed Rail.** Support implementation of a high speed rail system. This is not applicable as the General Plan Amendments have no bearing on high speed rail facilities.

13. **Green Building Strategy.** Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. The Housing Element promotes energy efficient building design as well as implementation of existing building and other codes regulating minimum energy, water, and waste efficiency consistent with 2011 CALGREEN requirements and would thus be consistent and not interfere with this program. General Plan Amendments to comply with SB 244 do not pertain to new building projects or building strategies and would not interfere with any green building programs.

14. **High Global Warming Potential Gases.** Adopt measures to reduce high global warming potential gases. The proposed General Plan Amendments would not directly result in generation of high global warming potential gases, and would not interfere with implementation of any future changes in air conditioning, fire protection suppressant, or other emission requirements.

15. **Recycling and Waste.** Reduce methane emissions at landfills. Increase waste diversion, composting and other beneficial uses of organic materials, and mandate commercial recycling to move toward zero-waste. The proposed Housing Element

[29] California Air Resources Board. Scoping Plan Measures Implementation Timeline. October 2010.

is consistent because implementing housing development will be required to recycle a minimum of 50 percent from construction activities per State requirements. General Plan Amendments to comply with SB 244 do not authorize any particular new development to occur and thus would not interfere with any recycling and waste-reduction programs.

16. **Sustainable Forests.** Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation. The 2020 target for carbon sequestration is 5 million MTCO2E/YR. The proposed General Plan Amendment will not result in the development of uses that remove any forest areas and therefore would not interfere with forest sequestration.

17. **Water.** Continue efficiency programs and use cleaner energy sources to move and treat water. The proposed Housing Element is consistent since implementing development will include use of low-flow fixtures and water-efficient landscaping per State and local requirements. General Plan Amendments to comply with SB 244 do not pertain to new building projects or building strategies and thus would not interfere with any water conservation programs.

18. **Agriculture.** In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020. The proposed General Plan Amendments do not involve any agricultural activity.

As summarized above, the proposed Housing Element and General Plan Amendments will not conflict with Regional Transportation-Related GHG targets or any of the other provisions of the Scoping Plan. The proposed Housing Element in fact supports four of the action categories through energy efficiency, green building, recycling/waste, and water conservation through these proposed and current policies, and amendments associated with SB 244 would have no effect.

Regional Transportation Plan/Sustainable Communities Strategy (SB375)
The 2012 Regional Transportation Plan/Sustainable Communities Strategy and the goals, policies, and programs included within it are projected to obtain and exceed applicable GHG reduction targets of eight percent by 2020 and 13 percent by 2035. Projected reductions by the RTP/SCS are nine percent by 2020 and 16 percent by 2035. Ultimately, the RTP/SCS is keyed to implement the requirements of AB32 at the regional level. For a program-level analysis, if the proposed General Plan Amendments are consistent with the assumptions of the RTP/SCS, then long-term development within the planning area will meet regional reduction targets. Furthermore, long-term development would meet the broader statewide reduction goals of 1990 levels by 2020 and 80 percent beyond that by 2050. The proposed General Plan Amendment would, therefore, not contribute substantially to climate change impacts if it is consistent with the regional and statewide climate change planning efforts.

As assumed in the RTP/SCS, based on current City boundaries, San Bernardino is forecast to grow to a total population of 231,200 by 2020 and 261,400 by 2035. The ultimate build-out of the General Plan land use plan can accommodate approximately

95,664 dwelling units for a total population of 319,241, which would accommodate the long-term projected growth. In addition, the proposed Housing Element and identified Opportunity Sites are projected to meet the City's allocated RHNA for short-term growth, which is a function of the City's projected long-term growth. Therefore, by providing sites to accommodate the RHNA, the Housing Element is contributing short-term towards consistency with long-term growth projections and the RTP/SCS. The existing General Plan and proposed Housing Element are consistent with the population growth forecasts of the RTP/SCS because they provide the capacity for residential development to accommodate the projected population growth and not direct growth elsewhere, which would interfere with implementation of the RTP/SCS. The Amendments associated with SB 244 would not permit new development or induce growth and thus would not interfere with implementation of the RTP/SCS. Impacts will be less than significant.

4.8 - HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
h) 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?	☐	☐	☒	☐

a-b) **No Impact.** The San Bernardino Housing Element is a policy document intended to facilitate maintenance of the existing housing stock and production of new housing to meet the targeted housing needs of the community. Residential development does not require and is not expected to require the manufacturing, use, transportation, disposal, or storage of dangerous quantities of hazardous materials. Residential uses do not generate hazardous wastes or emissions, except for very small quantities of typical household cleaning agents, automotive maintenance products, paints, pesticides, and herbicides. General Plan Amendments to comply with SB 244 do not revise any General Plan policies and are limited to updating information related existing conditions and infrastructure. The proposed Housing Element and General Plan Amendments would not conflict with any hazardous materials regulations and would not exempt any future development from the City's programs to control and safely dispose of hazardous materials and wastes or to reduce the volume of wastes requiring landfill disposal. Thus, no impact will result.

With regard to construction, housing development pursuant to Housing Element policy could involve demolition of existing structures. SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities) requires work practices that limit asbestos emissions from building demolition and renovation activities, including the removal and disturbance of asbestos containing materials (ACM). This rule is generally designed to protect uses and persons adjacent to demolition or renovation activity from exposure to asbestos emissions. Rule 1403 requires surveys of any facility being demolished or renovated for the presence of all friable and Class I and Class II non-friable ACM. Rule 1403 also establishes notification procedures, removal procedures, handling operations, and warning label requirements, including HEPA filtration, the glovebag method, wetting, and some methods of dry removal that must be implemented when disturbing appreciable amounts of ACM (more than 100 square feet of surface area). All future housing developments will be subject to the City's standard environmental review process for evaluation of hazards. Considering implementation of existing policies and standards, impacts associated with asbestos hazards will be less than significant.

Exposure of construction workers to lead-based paint during demolition activities is also of concern, similar to exposure to asbestos. Exposure of surrounding land uses to lead

from demolition activities is generally not a concern because demolition activities do not result in appreciable emissions of lead. If lead contamination exists on future housing sites, 8 CCR Section 1532.1 (California Construction Safety Orders for Lead) is applicable to the demolition of all existing structures requiring exposure assessment and compliance measures to keep worker exposure below action levels. The project is also subject to Title 22 requirements for the disposal of solid waste contaminated with excessive levels of lead. Impacts due to lead exposure and contamination will be less than significant with adherence to existing regulations.

c) **No Impact.** No specific new development is associated with the proposed Housing Element and General Plan Amendments proposed pursuant to SB 244. Since the Housing Element Opportunity Sites are located throughout the City of San Bernardino, schools are likely to be located within one quarter mile of future housing development. However, future residential development that may be facilitated by this Housing Element update would not generate hazardous air emissions and would not involve the handling of any acutely hazardous substances or wastes. Thus, the updated Housing Element would not result in impacts related to the presence of any hazardous materials or emissions within one quarter mile of a school. No impact would occur.

d) **Less than Significant Impact.** According to the databases maintained as the Cortese List, none of the Housing Element Opportunity Sites are identified on the Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances Site List or the State Water Resources Control Board (SWRCB) list of cleanup sites.[30] However, there are multiple open cases for leaking underground storage tanks (LUST) identified by the SWRCB GeoTracker database within the City, most of which are located between I-10 and SR-210 east of the I-215. (See Table 8) An open LUST case is located on the Carousel Mall Shopping Center (T10000001491), which is identified by the proposed Housing Element as a 44-acre underutilized mixed-use site. A site assessment was initiated in 2009 to evaluate the potential contaminants of concern (gasoline) to soil.

Since these are open cases, remediation of the existing hazards is taking place or will occur in the future and potential impacts to future residential development will be diminished. Any future development will be subject to the City's standard environmental review that will include identification of any contaminated site possibly not already identified and implementation of appropriate cleanup and disposal procedures; therefore, less than significant impacts related to contaminated sites will occur. This is consistent with the policies of the General Plan Safety Chapter. The General Plan Amendments propose no changes to these safety measures. Impacts will be less than significant.

[30] California Environmental Protection Agency. Cortese List Data Resources/ www.calepa.ca.gov/SiteCleanup/CorteseList/ [June 3, 2013]

Table 8
City of San Bernardino Open LUST Sites

Site Name/Global ID	Address	Cleanup Status
1. Allen Property (T0607199300)	895 2nd St. West	Site assessment
2. Archer- JC LLC (Abandoned Station) (T0607100623)	208 Waterman Ave. North	Site Assessment
3. ARCO #5082 (T0607100042)	605 North H St.	Eligible for Closure
4. Bonadiman-Mccain Inc. (T10000001488)	280 S Lena Rd.	Site Assessment
5. California Highway Patrol (T0607100437)	2211 Western Ave.	Verification Monitoring
6. Carousel Mall Shopping Center (T10000001491)	**144 Central City Mall**	**Site Assessment**
7. Former M&M Smog and Muffler (T10000003588)	1915 East Tippecanoe Ave.	Assessment and interim remedial action
8. Gas Plus (T0607199156)	1266 E St. South	Assessment and interim remedial action
9. INCO Service Station (T0607100231)	796 W 5th St.	Eligible for Closure
10. In-N-Out Burger (Former Gas Station) (T10000002949)	795 West 5th St.	Eligible for Closure
11. Levitz Furniture (T0607100391)	736 Inland Center Dr.	Remediation
12. Mobile #18-HPH (T0607100339)	520 Orange Show Rd.	Remediation
13. P and M Station #937 (T0607100051)	501 Inland Center Dr.	Eligible for Closure
14. Shell Service Station (T0607195783)	505 Orange Show Rd.	Eligible for Closure
15. Shell Station (T0607190543)	1930 Waterman Ave.	Verification Monitoring
16. Truck O Mat (T0607100235)	1955 Hunts Lane	Remediation

Applicable General Plan Policies

Goal 10.1 Protect the environment, public health, safety, and welfare from hazardous wastes.

Policy 10.1.1 Employ effective emergency preparedness and emergency response strategies to minimize the impacts from hazardous materials emergencies, such as spills or contamination.

Policy 10.1.2 Ensure the protection of surface and groundwater quality, land resources, air quality, and environmentally sensitive areas through safe transportation

of waste through the City and comprehensive planning of hazardous materials, wastes, and sites.

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 10.2.5 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.

e) **No Impact.** The San Bernardino International Airport and Trade Center (SBIA) is located in the southeastern edge of the City. 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 City's General Plan Land Use Chapter indicates an Airport Influence Area for the SBIA (General Plan Figure LU-4). Housing Element Opportunity Sites are located within the City's established Airport Influence Area; however, the majority of the Opportunity Sites are located in northern San Bernardino outside of the airport influence area. The City's Development Code includes Airport Overlay Districts (Municipal Code 19.12). For planning purposes, federal and state laws have established well-defined regulations for acceptable noise levels with the basic criterion set at a maximum 65 decibel (dB) Community Noise Equivalent Level (CNEL) value. According to the Airport Layout Plan Narrative Report, all Opportunity Sites are located outside of the 65 decibel (dB) Community Noise Equivalent Level (CNEL) noise contour.[31] Policies have been included in the General Plan Land Use Chapter to minimize the impacts of airport hazards and noise. Ontario International Airport (ONT) is located approximately 25 miles southwest of the City. The Riverside Municipal Airport is located approximately 12 miles south of the City and there are also two general aviation airports in the area, one to the west in Rialto and the second to the southeast in Redlands. There will be no impact with implementation of existing General Plan policy.

[31] Airport Layout Plan Narrative Report for the San Bernardino International Airport. Exhibit 4H. Coffman Associates, Inc. November 2010.

Applicable General Plan Land Use Chapter 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 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 2.9.3 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 2.9.4 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.

Policy 2.9.5 Ensure that the height of structures do 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.

f) **No Impact.** No private airstrips were identified within the vicinity of the City of San Bernardino. The General Plan Circulation Chapter identifies five helipads in the City. The helipads are private-use facilities and are situated at the National Orange Show Events Center, Red Dog Properties, San Bernardino Community Hospital, SCE Eastern Division, and the Tri-City area. There will be no impact with implementation of General Plan Policy 6.8.3.

General Plan Circulation Chapter Policies

Policy 6.8.3 Work with the Federal Aviation Administration to ensure that the existing or new Heliports within San Bernardino operate in a safe manner and minimize impacts on adjacent properties.

g) **Less than Significant Impact.** The proposed Housing Element and General Plan Amendments would not change or interfere with the emergency response plans of the City, and the project components do not propose any alteration to vehicle circulation routes that could interfere with such plans. In accordance with City policies, the City will review all development proposals to determine the possible impacts of each development on emergency services. Impacts will be less than significant.

h) **Less than Significant Impact.** The City of San Bernardino is susceptible to wildland fires due to the 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. Major fires have endangered the City on numerous occasions and in several instances, have spread into the City causing extensive damage.

Portions of northern San Bernardino are located within a Very High Fire Hazard Severity Zone (VFHSZ), as documented on the latest maps prepared by the California Department of Forestry and Fire Protection.[32] Opportunity Sites located along the northern boundary of the City and between I-215 and Kendall Drive are located within the Very High Fire Hazard Severity Zone (VHFHSZ). One DUC (Arrowhead Farms) identified in General Plan Appendix 16 is located completely within a VHFHSZ. Construction of residences within Very High FHSZs will be required to comply with California Building Code requirements for fire protection in areas prone to wildfires, in particular Section 701A that will require construction with fire resistant materials and methods to minimize property damage. Fire protection services would also continue to be provided for residences in the City and is further discussed in Section 4.14. With the implementation of existing General Plan Policies, building code requirements and adequate fire protection services, impacts from wildfire on future development pursuant to the policies of the General Plan amendments would be less than significant.

Applicable General Plan Safety Chapter Policies

Goal 10.11 Protect people and property from urban and wildland fire hazards.

Policy 10.11.2 Work with the U.S. Forest Service and private landowners to ensure that buildings are constructed, sites are developed, and vegetation and natural areas are managed to minimize wildfire risks in the foothill areas of the City.

Policy 10.11.3 Require that development in the High Fire Hazard Area, as designated on the Fire Hazards Areas Map (Figure S-9) be subject to the provisions of the Hillside Management Overlay District (HMOD) and the Foothill Fire Zones Overlay.

[32] California Department of Forestry and Fire Protection. Fire Hazard Severity Zones Maps. http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps.php [November 27, 2013].

4.9 - HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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 that 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?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐

a) **Less than Significant Impact.** The project is a policy document that facilitates the production of housing and provides information on infrastructure in unincorporated disadvantaged communities within the City sphere of influence and does not include any components that would change or conflict with water quality regulations or any waste discharge standards. All new development projects must comply with the City's local procedures to control storm water runoff to prevent violations of regional water quality standards, in accordance with its co-permittee obligations under the countywide municipal storm water permit program, a component of the NPDES program of the federal Clean Water Act. All future development must connect to sewer or an adequate septic system as appropriate; direct discharges of wastewater to surface or ground waters would not be permitted. A less than significant impact will occur with the implementation of these existing requirements and procedures.

b) **Less than Significant Impact.** If the project removed an existing groundwater recharge area or substantially reduced runoff that results in groundwater recharge, a potentially significant impact could occur. San Bernardino overlies the Upper Santa Ana Valley Groundwater Basin, Bunker Hill Subbasin. The Bunker Hill Basin consists of the alluvial materials that underlie the San Bernardino Valley. Recharge to the Bunker Hill Basin historically has resulted from infiltration of runoff from the San Gabriel and San Bernardino Mountains. The Santa Ana River, Mill Creek and Lytle Creek contribute more than 60 percent of the total recharge to the ground-water system. Lesser contributors include Cajon Creek, San Timoteo Creek, and most of the creeks flowing southward out of the San Bernardino Mountains such as East Twin Creek. The subbasin is also replenished by deep percolation of water from precipitation and resulting runoff, percolation from delivered water, and water spread in streambeds and spreading grounds. Total groundwater storage of the Basin is 5,976,000 acre-feet, while as of 1998 the total amount of water in the Basin was 5,890,300 acre-feet. San Bernardino gets one hundred percent of its water from the Bunker

Hill Basin. San Bernardino Municipal Water Department owns a total of 60 wells in the basin, some as much as 1,200 foot deep, that tap into the aquifer. Wells yield up to 5,000 gpm and average about 1,245 gpm.[33]

The proposed project is comprised of policy documents that would not authorize any specific development project or change any existing land use policies regulating location or intensities of uses, nor would it result in installation of any groundwater wells, and would not otherwise result in a direct withdrawal of groundwater. Future development is not anticipated to substantially interfere with groundwater recharge because the City requires that storm water run-off in excess of existing conditions be directed to retention basins where the water will percolate into the ground, thereby recharging subsurface aquifers. Impacts related to groundwater recharge and depletion will be less than significant.

General Plan Energy and Water Conservation Chapter Policies

Goal 13.2 Manage and protect the quality of the City's surface waters and ground water basins.

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 13.2.4 Require the use of reclaimed water for landscape irrigation and other non-contact uses for industrial projects, golf courses, and freeways.

Policy 13.2.7 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 Best Management Practices (BMPs) are implemented for each project to control the discharge of point source and non-point source pollutants both during construction and for the life of the projects to protect the City's water quality.

Policy 13.2.9 Require that new construction on a site that is at least one acre comply with the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit 99-08-DWQ).

c) **Less than Significant Impact.** The City of San Bernardino is largely developed. Wind and water both cause erosion that could be deposited in local or regional washes and other water bodies. Development of the Housing Element Opportunity Sites may alter the existing localized drainage patterns and increase the amount of impervious surfaces through the development of vacant properties. Any new development would be required to size storm water drainage facilities appropriately. The extreme topographic relief between the valley and the surrounding mountains makes erosion and sedimentation an important issue for some areas of the City. Erosion on steep or graded slopes especially in the northern portion

[33] California Department of Water Resources. Groundwater Bulletin 118. Bunker Hill Subbasin. 2004.

of the City where many of the Housing Element Opportunity Sites and some DUCs are located can contribute to slope failure hazards in the City. However, the City does have a Hillside Management Overlay Zone to regulate development within the City that would alter slopes in these areas. Any impact to the drainage pattern and potential erosion hazards would be mitigated on a project by project basis by adherence to the NPDES requirements as well as the City's Municipal Code (or County's Municipal Code, as applicable), which includes provisions for on-site water retention. Additionally, the General Plan contains methods to reduce erosion through goals, policies, and programs related to the protection of drainage systems. The General Plan policies also require compliance with the NPDES program. Impacts related to erosion and siltation will be less than significant.

General Plan Policies

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 13.2.10 Require that development in the City's watersheds incorporate adequate landscape and groundcover to prevent slope erosion and significant sedimentation of canyon drainages.

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.

d) **Less than Significant Impact.** The Housing Element Update and General Plan Amendments related to SB 244 are not likely to result in the alteration of the course of a stream or river. However, future development of the Housing Element Opportunity Sites or development in DUCs may incrementally alter the existing drainage patterns within the San Bernardino area and increase the amount of impervious surfaces through the development of vacant residentially zoned areas. However, any future development would be required to size storm water drainage facilities appropriately. The City's Development Code (19.30.090) requires the installation of storm drainage and/or retention improvements. With implementation of existing regulations and the City's Development Code, impacts associated with on- or off-site flooding will be less than significant.

e) **Less than Significant Impact.** Residential development typically does not generate significant water pollutants through point discharges but does contribute to water quality impacts due to community-wide and regional urban runoff. New development projects associated with the implementation of the proposed Housing Element would be required to ensure project-specific and citywide drainage systems have adequate capacity to accommodate new development. The majority of the Housing Element Opportunity Sites are vacant (with the exception of the Carousel Mall property). Thus, runoff from future development of the Opportunity Sites would be expected to increase runoff to the existing

storm drain system. However, all new housing or redevelopment projects are required to construct the necessary drainage improvements to adequately accommodate any additional runoff, in compliance with existing City requirements. The Amendments associated with SB 244 would not authorize any particular new development or induce growth. Thus, the Amendments would not create or contribute to water runoff water. Impacts will be less than significant.

f) **No Impact.** The proposed Housing Element and General Plan Amendments do not authorize construction or redevelopment of any particular property and would not result in any new or more extensive sources of water pollutants. No other impacts to water quality will occur.

g-h) **Less than Significant.** Flooding represents a potential hazard in San Bernardino, especially at the base of the mountains and foothills. Portions of the City are located within a 100-year flood plain according to the Federal Emergency Management Agency Flood Insurance Rate Maps as well as General Plan EIR Figure 5.7-1. DUCs and Housing Element Opportunity Sites located along the northern boundary of the City at the base of the San Bernardino Mountains could be subjected to flooding from mountain drainage. General Plan Policy 10.6.5 prohibits land use development and/or the construction of any structure intended for human occupancy within the 100-year flood plain as mapped by FEMA unless adequate mitigation is provided against flood hazards. The General Plan limits potential for development of residential structures in flood prone areas; thus impacts related to 100-year flood hazards will be less than significant.

General Plan Policies

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 10.6.4	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 10.6.7	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 10.6.10 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.

i) **Less than Significant Impact.** Flood inundation resulting from the failure of the Seven Oaks Dam is a potential hazard for the City of San Bernardino. Seven Oaks Dam is a single purpose flood control project constructed by the US Army Corps of Engineers. The dam is located on the Santa Ana River in the upper Santa Ana Canyon eight miles northeast of the City of Redlands, which borders the City of San Bernardino to the southeast. The dam is of earth and rock filled construction, is 550 feet in height and 2,600 feet wide.

The Dam operates in tandem with Prado Dam to provide flood protection to the region. During the early part of each flood season, runoff is stored behind the dam in order to build a debris pool to protect the outlet works. Small releases are made on a continual basis in order to maintain the downstream water supply. The dam is designed to provide 350-year flood protection and withstand an earthquake of 8-plus magnitude. During flood conditions, it creates a lake 500 feet deep extending three miles back into the canyon. In the unlikely event of dam failure, an inundation zone for the Seven Oaks Dam has been determined as shown on General Plan EIR Figure 5.7-2. The southeastern portion of the City would be affected if inundation occurred. The majority of the Housing Element Opportunity Sites and DUCs are not located in the dam inundation area. The National Dam Safety Act of 2006 authorized a program to reduce the risks to life and property from dam failure by establishing a safety and maintenance program. The program requires regular inspection of dams to reduce the risks associated with dam failures. Impacts due to risk of loss, injury or death involving flooding, due to dam inundation will be less than significant pursuant to existing regulations on dam safety.

j) **Less than Significant Impact.** A tsunami is a large wave that generates in the ocean, generally from an earthquake, and builds intense strength and height before impacting a coast. San Bernardino is not subject to impacts from a tsunami because it is not located near an ocean or sea. A seiche is the process by which water sloshes outside its containing boundaries, generally due to an earthquake. A seiche may cause an overflow of a lake, reservoir or lagoon. The General Plan EIR indicates that no features of this nature exist in San Bernardino or the SOI.

The Santa Ana River and its tributaries especially those out of the mountainous areas have the potential to carry large amounts of debris, or debris flow. Debris has the potential to fill or plug structures designed to collect and convey runoff, forcing floodwaters into the adjacent areas. Rapidly moving flows heavily laden with debris are also extremely dangerous. Mudflows are a potential hazard in San Bernardino, as well, especially to development at the base of the mountains. Housing Element Opportunity Sites and DUCs are located along the northern boundary of the City at the base of the San Bernardino Mountains, However, development of vacant areas within the City would be required to adhere to the Hillside Management Overlay Zone, and all new

development must meet the requirements of the Santa Ana Region Area-Wide Urban Strom Water Run-off permit (NPDES) which would limit the potential for mudflow.[34] With adherence to the Hillside Management Overlay Zone regulations and NPDES requirements, impacts to Opportunity Sites and DUCs related to seiches, tsunami, and mudflows will be less than significant.

[34] City of San Bernardino General Plan EIR. Environmental Analysis p.5.7-21. 2005.

4.10 - LAND USE AND PLANNING

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

a) **No Impact.** A significant impact would occur if the proposed project were sufficiently large or configured in such a way so as to create a physical barrier within an established community. The proposed Housing Element sites are scattered throughout the City, with the majority located along the northern boundary of the City at the base of the San Bernardino Mountains. Remaining Housing Element sites are located throughout the City and are surrounded primarily by existing residential and commercial land uses. The proposed General Plan Amendment to comply with SB 244 recognizes the boundaries of existing communities. The proposed General Plan Amendments rely on existing land use designations for development, and would not create any sort of physical barrier within the community, as no changes are proposed. Rather, the mix of uses where allowed (e.g. Carousel Mall Housing Element Site) may serve to facilitate pedestrian connections in these areas. Furthermore, project implementation would not provide for infrastructure systems such as new roadways or flood control channels that are not already planned and previously considered under the General Plan EIR. As such, the project would not divide or disrupt neighborhoods or any other established community elements in this previously developed and urbanized area. Therefore, no impact will occur.

a) **No Impact.** The San Bernardino Housing Element sets forth policies to encourage housing development consistent with adopted land use policies established in the General Plan. No changes in land use or development intensities are proposed. The Housing Element does not include any goals, policies, or programs that would conflict with adopted General Plan goals and policies to mitigate environmental effects. In general, the intent of the goals and policies remains the same from the previous housing element. As required by California Housing Element law, the update provides current

data on housing in the community and an analysis of the land available to meet the community's anticipated housing needs, as determined by HCD and SCAG in the RHNA. The update also includes programs for providing housing assistance and facilitating housing development. All housing opportunity sites and development densities identified to meet the City's RHNA are consistent with the existing Land Use Plan designations and all other pertinent policies of the General Plan and the Zoning Code.

General Plan Amendments to comply with SB 244 provide clarifications and new information but do not revise existing policy with regard to infrastructure, and as such no conflicts with existing policies would occur. There will be no significant impact on any plan, policy, or regulation of an agency having jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. No impact would occur.

b) **No Impact.** According to the Conservation Plans and Agreements database, there are no Habitat Conservation Plans or Natural Community Conservation Plans located in San Bernardino.[35] No impact could occur.

[35] U.S. Fish & Wildlife Service. Conservation Plans and Agreements Database. http://ecos.fws.gov/conserv_plans/public.jsp [December 3, 2013]

4.11 - MINERAL RESOURCES

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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 availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☒	☐

a-b) **Less than Significant Impact.** Mineral extraction is an important component of San Bernardino's economy. In the San Bernardino City area, the bulk of the construction aggregate is found in the natural sand and gravel deposits of Cajon Wash, Lytle Creek, Warm Creek, City Creek, and the Santa Ana River. Several areas within the San Bernardino region have been classified as Mineral Resource Zone 2 (MRZ-2) (General Plan EIR Figure 5.9-1). MRZ-2 areas indicate the existence of a construction aggregate deposit that meets certain State criteria for value and marketability based solely on geologic factors. However, the State Mining and Geology Board does not utilize existing land uses as criteria in its classification of MRZs, thus the classification of MRZs can occur in areas that are already developed with a variety of uses and intensities, even though these areas are unsuitable for mineral production. Regionally significant construction aggregate sectors within the City are depicted in General Plan EIR Figure 5.9-2. Private lands within the City that are part of the significant construction aggregate sectors are designated as Industrial Extractive and Industrial Heavy to facilitate mineral resource development. The Housing Element sites are located in residential or mixed-use zoning and land use districts and will not impact any land that is identified by the City for mineral extraction. The DUCs are not located in any areas identified for construction aggregate sectors or existing Industrial Extraction or Industrial heavy Use Zones. The Housing Element update and General Plan amendments related to SB 244 do not propose any changes to authorize new development where it would not otherwise be permitted to occur, and thus do not represent a loss in availability of a known mineral resource. A less than significant impact will occur.

4.12 - NOISE

Would the project result in:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, 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, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

San Bernardino is affected by several different sources of noise, including automobile, rail, and air traffic, sports events, commercial and industrial activity, and periodic nuisances such as construction.

Fundamentals of Sound and Environmental Noise

Noise can be defined as unwanted sound. Sound (and therefore noise) consists of energy waves that people receive and interpret. Sound pressure levels are described in logarithmic units of ratios of sound pressures to a reference pressure, squared. These units are called *bels*. In order to provide a finer description of sound, a *bel* is subdivided into ten decibels, abbreviated dB. To account for the range of sound that human hearing perceives, a modified scale is utilized known as the A-weighted decibel (dBA). Since decibels are logarithmic units, sound pressure levels cannot be added or subtracted by ordinary arithmetic means. For example, if one automobile produces a sound pressure level of 70 dBA when it passes an observer, two cars passing simultaneously would not produce 140 dB. In fact, they would combine to produce 73 dBA. This same principle can be applied to other traffic quantities as well. In other words, doubling the traffic volume on a street or the speed of the traffic will increase the traffic noise level by 3 dBA. Conversely, halving the traffic volume or speed will reduce the traffic noise level by 3 dBA. A 3 dBA change in sound is the level where humans generally notice a *barely perceptible* change in sound and a 5 dBA change is generally *readily perceptible*.[36]

Noise consists of pitch, loudness, and duration; therefore, a variety of methods for measuring noise has been developed. According to the California General Plan Guidelines for Noise Elements, the following are common metrics for measuring noise:[37]

> **L_{EQ} (Equivalent Energy Noise Level):** The sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over given sample periods. LEQ is typically computed over 1-, 8-, and 24-hour sample periods.
>
> **CNEL (Community Noise Equivalent Level):** The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7:00 P.M. to 10:00 P.M. and after addition of ten decibels to sound levels in the night from 10:00 P.M. to 7:00 A.M..
>
> **L_{DN} (Day-Night Average Level):** The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of ten decibels to sound levels in the night after 10:00 P.M. and before 7:00 A.M..

CNEL and L_{DN} are utilized for describing ambient noise levels because they account for all noise sources over an extended period of time and account for the heightened sensitivity of people to noise during the night. L_{EQ} is better utilized for describing specific and consistent sources because of the shorter reference period.

[36] California Department of Transportation. Basics of Highway Noise: Technical Noise Supplement. November 2009.

[37] California Governor's Office of Planning and Research. General Plan Guidelines. 2003.

Fundamentals of Environmental Groundborne Vibration
Vibration is sound radiated through the ground. The rumbling sound caused by the vibration of room surfaces is called groundborne noise. The ground motion caused by vibration is measured as particle velocity in inches per second, and in the U.S. is referenced as vibration decibels (VdB).

The background vibration velocity level in residential and educational areas is usually around 50 VdB. The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity level of 75 VdB is the approximately dividing line between barely perceptible and distinctly perceptible levels for many people. Sources within buildings such as operation of mechanical equipment, movement of people, or the slamming of doors causes most perceptible indoor vibration. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity level, and 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

The general human response to different levels of groundborne vibration velocity levels is described in Table 9 (Human Reaction to Vibration).

Table 9
Human Reaction to Vibration

Vibration Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception for many people.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level in unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006

a) Less than Significant Impact. The primary contributor to ambient noise in the planning area is automobile, air, and rail traffic. Several major transportation routes traverse the City of San Bernardino: State Routes 210, 18, 30, 330, and 66, as well as Interstates 10 and 215. Trains travel on three different rail lines through the City including: (1) The Cajon Pass Line; (2) The Main Line-Redlands, which extends eastward to the City of Redlands; and, (3) The Main Line-Colton, which extends westward to the City of Colton. Burlington Northern Santa Fe (BNSF) and Union Pacific (UP) also operate rail lines within the City. These rail lines include: (1) The Santa Fe Subdivision Two Line; (2) The Santa Fe Subdivision Three Line; and, (3) The Santa Fe Cajon Pass Line. The San Bernardino International Airport (SBIA) is located in the southeastern part of the City and accommodates cargo, airlines, and general aviation.

The City of San Bernardino Noise Ordinance (Section 19.20.030.15 of the Development Code) specifies the maximum acceptable levels of noise for residential uses in the City. These standards indicate that exterior noise levels at residential locations should not exceed a CNEL of 65 dB while interior levels shall not exceed an annual CNEL of 45 dB in any habitable room.

Chapter 12, Airport Overlay District, of the Development Code provides additional noise standards related to the flight operations of the San Bernardino International Airport and Trade Center within the 65 dB noise contours.

Title 8.54.050 of the San Bernardino Municipal Code controls the hours of operation for activities and equipment that generate loud noises such as leaf blowers (Ord. MC-1246, 5-21-07). The ordinance makes it unlawful for any person to engage in listed activities other that between the hours of 8:00 a.m. and 8:00 p.m. in residential zones and between the hours of 7:00 a.m. and 8:00 p.m. in all other zones.

Noise is regulated by numerous codes and ordinances across Federal, State, and local agencies. The General Plan Noise Chapter references noise standards from other agencies such as the Federal Highway Administration (FHWA), U.S. Department of Housing and Urban Development (HUD), U.S. Environmental Protection Agency, Federal Railroad Administration, and the California Department of Health Services (DHS). In addition, the Noise Chapter of the San Bernardino General Plan includes goals and policies related to the abatement of transportation and non-transportation related noise sources.

Since the proposed General Plan Amendments do not include any changes to land uses designated by the General Plan, nor result in any substantial traffic or other noise sources as analyzed in the General Plan EIR, the analysis included within the General Plan EIR would also apply to the proposed General Plan Amendments. Since the Housing Element and the proposed Land Use Element Appendix amendments would not increase any of the impacts as analyzed in the General Plan EIR, with the implementation of the General Plan policies (reviewed below), impacts will be less than significant.

General Plan Policies

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 14.1.4 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 14.2.15 Work with all railroad operators in the City to properly maintain lines and establish operational restrictions during the early morning and late evening hours to reduce impacts in residential areas and other noise sensitive areas.

Policy 14.2.16 Work with all railroad operators to install noise mitigation features where operations impact existing adjacent residential or other noise-sensitive uses.

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 General Plan Figure LU-4.

b) **Less than Significant Impact.** Groundborne vibration can result in impacts from minor annoyances to people to major shaking that damages buildings. The primary source of groundborne vibration within the City would be heavy construction activities. There may also be groundborne vibration occurring from trains on local railways. According to the Caltrans *Transportation- and Construction-Induced Vibration Guidance Manual,* other transportation sources are not a significant source of vibration and therefore are not discussed below.

Groundborne vibration generated by construction projects is usually highest during pile driving, rock blasting, soil compacting, jack-hammering, and demolition-related activities. Next to pile driving, grading activity has the greatest potential for vibration impacts if large bulldozers or large trucks are used. Long-term operation of housing does not utilize machinery that would generate substantial amounts of vibration. The construction of future potential housing developments could utilize machinery that would generate substantial amounts of ground vibration, especially where mass grading is required Table 10 (Common Construction Vibration) summarizes vibration levels from common construction equipment. Impacts to structures can occur from 0.08 PPV to 2.00 PPV depending on the duration of the vibration and the age of the structure. Similarly, human annoyance to vibration can occur from 0.01 PPV to 2.00 PPV depending on the duration.

Table 10
Common Construction Vibration

Equipment	PPV (in/sec at 25 ft)
Crack-and-Seat Operations	2.400
Vibratory Roller	0.210
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozer	0.003

Source: California Department of Transportation 2004

Vibration impacts are temporary and rare except in cases where large equipment is used near existing, occupied development. Construction noise and associated vibration will be controlled through the time restrictions currently established in the City's Noise Control requirements. Section 8.54.050 of the Municipal Code requires that construction activity and equipment maintenance is limited to the hours between 8:00 A.M. to 8:00 P.M. in residential districts and 7:00 A.M. to 8:00 P.M. in all other districts. These restrictions will minimize potential annoyance from vibration impacts to nearby residential development during sensitive evening and noise hours. Noise and vibration impacts will be evaluated on a project-by-project basis pursuant to CEQA and the City's local implementation procedures. Vibration is difficult to control and the best methods for mitigation are avoidance. Typical vibration mitigation includes routing and placement of equipment to maximize distance to receptors and use of alternative equipment, such as use of drilled pile drivers as opposed to impact drivers. Subsurface dampeners can also be utilized to reduce groundborne vibration. Impacts on future development related to

exposure to groundborne vibration will be less than significant with implementation of local environmental review procedures.

No significant impacts would be associated with vibration from rail lines or construction as associated with General Plan amendments, as no land use policy changes, particular developments, or infrastructure improvements are proposed.

c) **Less than Significant Impact.** Residential land uses do not typically produce excessive noise either individually or cumulatively that could substantially increase existing, ambient noise levels. The future development of the Housing Element Sites will increase ambient noise levels due to increased traffic generation in the project vicinity. Future development pursuant to Housing Element policy on the identified Housing Element Sites is anticipated to generate a total of approximately 119,571 daily vehicle trips. Thus, development of the Housing Element Sites would partially contribute to the noise volumes identified in the General Plan EIR. However, the proposed Housing Element and General Plan Amendments do not include changes to land uses and intensities designated in the current General Plan and analyzed in the EIR. The Housing Element does not propose any specific development or any land use changes that would invalidate this prior finding or further increase traffic levels beyond those analyzed in the General Plan EIR. Project specific increases in ambient noise levels due to future development on each Housing Element Site or within DUCs will be evaluated as development is proposed over the long-term pursuant to existing policies and procedures. With these existing policies and procedures, impacts related to increases in ambient noise levels will be less than significant.

d) **Less than Significant Impact.** The proposed Housing Element and General Plan Amendments do not authorize the development or redevelopment of any particular site but do include policies that could facilitate development of future housing. Temporary increases in local noise levels would be associated with construction activities of future development in identified areas. Construction noise will be controlled through the time restrictions currently established in the City's noise control requirements. The General Plan Amendemtns would not result in any new or more severe temporary noise impacts associated with construction as the General Plan Amendments do not propose land uses or intensities not already designated in the General Plan and analyzed in the EIR. Continued enforcement of the City's noise restrictions will reduce temporary noise impacts associated with the General Plan Amendments to a less-than-significant level.

e-f) **Less than Significant Impact.** The San Bernardino International Airport (formerly Norton Air Force Base) is located within the southeast portion of the City. Airport noise generated from large aircraft contributes to the noise environment within the City. An Airport Comprehensive Land Use Plan (ACLUP) has not been adopted at the time of preparation of this analysis. According to the noise contours included in the Airport Layout Plan, Housing Element Sites are not within the 65 dBA CNEL contour and will not be impacted by airport operations. In addition, there are no private airstrips located within two miles of the Housing ElementSites. No specific new development is associated with the proposed Housing Element and General Plan Amendments, and no changes to safety policies related to air traffic are proposed. Airport noise impacts will be less than significant.

4.13 - POPULATION AND HOUSING

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐

a) **Less than Significant Impact.** Adoption and implementation of the Housing Element will not directly result in population growth. Population growth is a complex interaction among immigration, emigration, birth, deaths, and economic factors. The proposed Housing Element is designed to guide and accommodate the inevitable population growth the community will face over the short and long term. The Census reported the City had a population of 185,401 in 2000 and 209,924 as of 2010, which represents an approximately 13.2 percent increase. SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) estimated a 2008 population for San Bernardino of 209,900 and projects an estimated population of 231,200 and 261,400 by 2020 and 2035, respectively.

Construction of future new housing on the Housing Element Sites would result in an increase of approximately 14,003 new dwelling units and approximately 47,890 new residents (14,003 dwelling units at 3.42 persons per household). Because the proposed Housing Element does not include any changes in land use or densities already allowed in the General Plan, this increase is within the growth assumptions estimated by SCAG and therefore will adequately accommodate future residential growth. In addition, the proposed Housing Element and identified opportunity sites are projected to meet the City's RHNA (4,384 units), which is correlated with the City's long-term growth projected by SCAG. No land use changes are proposed through the General Plan Amendments to comply with SB 244 and no particular development would be authorized as associated with the project. Impacts will be less than significant.

b) **Less than Significant Impact.** The proposed Housing Element is designed to encourage and facilitate housing development and preserve and enhance existing housing stock.

The City is urbanized and largely built out. The sites inventory identifies vacant land and one underutilized property, the 44-acre Carousel Mall property, which contains no existing housing units on site. The availability of residential units will increase as a result of the Housing Element and no net loss would occur. The other proposed General Plan Amendments do not change any applicable land use designations and do not propose or anticipate any specific development proposals or infrastructure projects. Therefore, these amendments will not result in any impacts that were not addressed in the General Plan EIR. Impact will be less than significant.

c) **Less than Significant Impact.** The proposed Housing Element will not directly displace any people because the project does not authorize the demolition or conversion of any housing unit. Existing housing units do not currently exist on the identified Housing Element sites. The identified sites are either vacant or underutilized properties. The Carousel Mall property is the only non-vacant property identified and it currently is not used for residential purposes. The Housing Element does not authorize the acquisition of any existing residential dwelling unit. New housing, if constructed on these sites, will produce more units than exist today, providing greater opportunities for people to purchase or rent homes in San Bernardino. The impact will be less than significant.

4.14 - PUBLIC SERVICES

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:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☒	☐
d) Parks?	☐	☐	☒	☐
e) Other public facilities?	☐	☐	☒	☐

a-e) **Less than Significant Impact.** The San Bernardino Housing Element update sets forth policies and programs to encourage housing development consistent with adopted General Plan land use polices. Residential development constructed pursuant to Housing Element policy will incrementally increase the need for fire and police protection, schools, and parks. SCAG estimates that the City's population will be 261,400 in 2035. The Housing Element's goal to facilitate 4,384 new units by 2021 would increase the local housing stock from approximately 60,614 to 64,998 units and would increase the resident population by approximately 14,993 persons (4,384 dwelling units at 3.42 persons per household). The other proposed General Plan Amendments do not change any applicable land use designations and do not propose or anticipate any specific development proposals or infrastructure projects. Therefore, these amendments will not result in any impacts that were not addressed in the General Plan EIR. The General Plan EIR indicates that build out of the land use plan would result in less than significant impacts to parks, schools, fire, or police services.

Fire Protection

The City of San Bernardino is serviced by the San Bernardino City Fire Department (SBCFD). The SBCFD serves a resident population of over 180,300 and covers a diverse service area of 60 square miles. Future plans for development and redevelopment will be reviewed by City staff to determine any impacts of development on emergency services and are also subject to review by the San Bernardino Fire Department for compliance with applicable standards and policies. Future plans for development are also subject to the policies of the General Plan Safety Chapter. The policies within the Safety Chapter, Public Facilities & Services Chapter, and Utilities Chapter are designed to ensure adequate provision of public services in response to long-term growth. Property taxes and other special taxes paid by future property owners will also support

the incremental expansion of public services as the population in the City grows. Impacts to public services will be less than significant.

Fire Protection in Disadvantaged Unincorporated Communities
As required by Senate Bill 244, Disadvantaged Unincorporated Communities (DUCs) within or adjacent to a city's sphere of influence are required to be identified in a city's General Plan, along with information regarding existing and planned water, sewer, and flood control infrastructure and fire protection services within those communities. Seven areas within the City of San Bernardino's sphere of influence have been identified as DUCs. (See Exhibit 3: Map of DUCs)

The DUCs are adequately served by fire services. The distance from the closest fire station to any of the DUCs is approximately two miles. This distance is close enough to allow for adequate response time for urban uses within nine minutes, pursuant to National Fire Protection Association response time standards. No changes to land use policy are proposed within the DUCs. Impacts would be less than significant.

Police
Future plans for development and redevelopment will be reviewed by City staff to determine any impacts of development on emergency services and are also subject to review by San Bernardino's Police Department for compliance with applicable standards and policies. Future plans for development are also subject to the policies of the General Plan Safety Chapter. The Safety Chapter and Public Facilities and Services Chapter policies are designed to ensure adequate provision of public services in response to long-term growth. Property taxes and other special taxes paid by future property owners will also support the incremental expansion of public services as the population in the City grows. Impacts to police services will be less than significant.

Schools
Educational services within the majority of the planning area are provided by the San Bernardino City Unified School District (SBCUSD). Portions of the planning area also extend into Colton Joint Unified, Redlands Unified, and Rialto Unified School Districts. Any impact on the provision of school services is mitigated through the payment of development impact fees pursuant to the Leroy F. Green School Facilities Act. With payment of required fees, impact will be less than significant.

Parks
According to the General Plan (Table PRT-1), the City will experience a shortfall in required parkland at buildout if no additional parks are provided. The City utilizes a park acreage standard of five acres per 1,000 residents. The City uses the State Quimby Act and its Development Code for fees and land dedications as well as the Capital Improvement Program to establish standards and schedules for acquisition and development of new park or rehabilitation of existing parks and recreation facilities. Any future housing development will be required to pay development impact fees in accordance with this existing regulation; thus deterioration of existing parks and recreation facilities will be less than significant as a result of future housing development because parks and recreation facilities will be incrementally expanded to

meet future residential demand. Furthermore, no land use changes are proposed as part of the General Plan amendment which would increase demand.

Other Public Facilities

Build-out of the San Bernardino General Plan would result in an increase in population within the City necessitating the need for additional collections for the public libraries within the City of San Bernardino Public Library system. However, capital costs to provide additional facilities and improvements would be funded by the State Library Fund bond measure and operating costs through the normal City revenue sources and budgetary process. Upon implementation of General Plan policies, the impact to library services would be less than significant.

4.15 - RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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 that might have an adverse physical effect on the environment?	☐	☐	☒	☐

a) **Less than Significant Impact.** According to the General Plan, there are a total of 52 developed parks totaling 539.98 acres. In addition to City facilities, the County Regional Parks system includes Glen Helen, Yucaipa, Lake Gregory, Cucamonga, Guasti, Prado, and Mojave Narrows, all within a range of approximately 10 to 40 miles of the City of San Bernardino. The nearest to the City is Glen Helen Park, which provides a multi-faceted recreation area for fishing, boating, picnicking and other activities for many City dwellers.

The City uses the State Quimby Act and its Development Code for fees and land dedications as well as the Capital Improvement Program to establish standards and schedules for acquisition and development of new park or rehabilitation of existing parks and recreation facilities. The City 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. The City Development Code (Chapter 19.30) 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. Any future housing development will be required to pay development impact fees in accordance with this existing regulation; thus deterioration of existing parks and recreation facilities will be less than significant as a result of future housing development because parks and recreation facilities will be incrementally expanded to meet future residential demand. No land use changes or infrastructure projects are proposed as part of the General Plan Amendments and no changes to parkland are proposed. Therefore, these amendments will not result in any impacts that were not addressed in the General Plan EIR.

b) **Less than Significant Impact.** The General Plan Amendments would not result in the direct construction of any recreation facilities. Future construction of recreation facilities in

response to incremental, long-term population increases will be subject to the City's standard environmental review process pursuant to CEQA. Local recreation facilities typically do not result in significant impacts. Impacts related to the potential construction of future recreation facilities will be less than significant.

4.16 - TRANSPORTATION AND TRAFFIC

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards 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) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

a) **Less than Significant Impact.** Development of future housing developed pursuant to Housing Element policy on the identified opportunity sites would result in approximately 119,571 weekday, 127,003 Saturday, and 109,725 Sunday daily vehicle

trips at build-out based on CalEEMod analysis used for air quality and greenhouse gas emissions (see Appendix A). (This calculation does not account for any discount on trips associated with existing uses on the one non-vacant Housing Element site.) The proposed Housing Element will not directly result in construction of any development or infrastructure, but future residential development supported by the policies of the updated Housing Element will result in additional traffic. However, since the Housing Element would not alter any land use designations that would affect the traffic impacts presented in the General Plan EIR, no additional impacts beyond those analyzed in the General Plan would occur. The other proposed General Plan Amendments do not change any applicable land use designations and do not propose or anticipate any specific development proposals or infrastructure projects. Therefore, these amendments will not result in any impacts that were not addressed in the General Plan EIR.

b) **Less than Significant Impact.** The Congestion Management Program (CMP) is administered by the San Bernardino Associated Governments (SANBAG). The CMP establishes a service goal of LOS E or better on all CMP roadway segment. According to the SANBAG Map Viewer, CMP facilities within the City of San Bernardino include:

- Del Rosa & 3rd
- Del Rosa & S. Date
- Del Rosa Ave. & Highland Ave.
- Del Rosa Dr. & 5th Street
- Del Rosa Dr. & Baseline
- E Street & 2nd Street
- E Street & 9th Street
- E Street & Baseline
- E Street & Highland
- E Street & Mill (Inland Center)
- E Street & Orange Show
- E Street & Rialto Ave.
- H St. & 5th St. (SR-66)
- Hunts Ln. & Redlands
- I Street & 3rd Street
- Kendall Dr (SR-206) & 40th St.
- Mt. Vernon & 2nd Street
- Mt. Vernon & 5th Street
- Mt. Vernon & Baseline
- Mt. Vernon & Highland
- Mt. Vernon & Mill
- Mt. Vernon & Rialto
- Palm & Highland (SR-30)
- Palm & Pacific
- Pepper & Mill
- Pepper & Rialto
- Rancho & Foothill (SR-66)
- Rancho & Rialto
- Sterling & Baseline
- Sterling Ave. & 3rd Street
- Sterling Ave. & 5th Street
- Sterling Ave. & Highland
- Tippecanoe & 3rd Street
- Tippecanoe & Mill
- Tippecanoe & S. Bernardino
- Waterman & 2nd St.
- Waterman & 3rd St.
- Waterman & 5th St.
- Waterman & 9th St.
- Waterman & 9th St.
- Waterman & Barton
- Waterman & Baseline
- Waterman & Highland
- Waterman & Hospitality Ln.
- Waterman & Mill
- Waterman & Redlands
- Waterman (SR-18) & 40th St
- Waterman EB Ramps & SR-210
- Waterman WB Ramps & SR-210

Traffic Impact Analysis Reports must be prepared to satisfy San Bernardino County CMP requirements when a proposed change in land use, development project, or at

local discretion, a group of projects are forecast to equal or exceed the CMP threshold of 250 two-way peak hour trips generated.[38]

As identified in Section 4.15.a above, the proposed Housing Element would result in an approximate maximum of 119,571 weekday trips at build-out. For individual development projects, the City will determine if a traffic impact analysis is required as part of the City's standard environmental review process and determine potential future impacts to CMP facilities. The proposed General Plan Amendments would not alter any land use that could increase development intensity that could potentially create a greater impact than was already analyzed by the General Plan EIR. No specific development proposals or infrastructure projects are proposed. Therefore, these amendments will not result in any impacts that were not addressed in the General Plan EIR. Impacts related to level of service standards on CMP facilities will be less than significant.

c) **No Impact.** The updated Housing Element is focused on achieving local housing objectives. The proposed General Plan amendments do not authorize any construction that would result in the need to redirect or otherwise alter air traffic patterns. Furthermore, the proposed General Plan Amendments will not result in substantial population growth that could significantly increase air traffic. Therefore, the project will have no air traffic impacts.

d) **No Impact.** The project does not involve the construction of any roadway and would have no effect on the City's street and site design standards.

e) **Less than Significant Impact.** The project does not involve any road construction or any development activity and thus will not obstruct or restrict emergency access to or through the City. Future housing development facilitated by implementation of Housing Element policies will be subject to site plan review. In conjunction with the review and approval of building permits, the City Fire Department reviews all plans to ensure compliance with all applicable emergency access and safety requirements. With continued application of project review procedures, impacts involving emergency access will be less than significant.

f) **No Impact.** The project includes programs and policies to encourage the development of new housing units to meet the City's regional fair share of housing, as required by state law; the project does not authorize any design, plans, or projects for construction of new housing. The proposed General Plan Amendments, including Housing Element policies and programs, would not conflict with or have an effect on any local or regional policies involving support of alternative transportation.

[38] Congestion Management Program for San Bernardino County. Appendix C: Guidelines for CMP Traffic Impact Analysis Reports. 2007.

4.17 - UTILITIES AND SERVICE SYSTEMS

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional 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 could 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?	☐	☐	☐	☒

a) **No Impact.** Wastewater treatment requirements for the City of San Bernardino are established by the Santa Ana Regional Water Quality Control Board (RWQCB). These treatment requirements establish pollutant limits for effluent discharges to receiving waters. Future development, consistent with existing General Plan land use policy, will result in typical wastewater discharges, and will not require new methods or equipment for treatment that are not currently permitted for the existing treatment plants. Furthermore, residential development is not subject to point-source discharge

requirements. The project will not impact compliance with RWQCB treatment requirements. Future housing development will not interfere with compliance with RWQCB wastewater treatment requirements.

The proposed General Plan Amendments do not change any applicable land use designations and do not propose or anticipate any specific development proposals or infrastructure projects. Amendments to comply with SB 244 identify disadvantaged unincorporated communities and outline existing infrastructure plans and policies; no changes are proposed to existing infrastructure policy. Thus, no impact will occur.

b) **Less than Significant Impact.** Future development will incrementally increase water demand and wastewater discharges. The City Public Works Department is responsible for the wastewater collection facilities in the City. Operation and maintenance of wastewater collection facilities is the responsibility of the Public Services Department. Wastewater collection facilities within the planning area are owned and operated by four different entities: City of San Bernardino (Public Works and Public Services Departments); East Valley Water District (EVWD); San Bernardino International Airport and Trade Center; and the City of Loma Linda. Wastewater collection is provided within the eastern portion of planning area by the East Valley Water District, which operates and maintains its own wastewater collection system. Wastewater collected by the East Valley Water District is transported to the City's collection facilities prior to treatment at the San Bernardino Water Reclamation Plant (SBWRP). The City of Loma Linda operates and maintains a wastewater collection system within the southern portion of the City. Wastewater collected within Loma Linda's service area is conveyed to the City of San Bernardino's wastewater collection system prior to treatment at the SBWRP. The water reclamation plant is a 33 MGD Secondary Treatment facility that serves a population of over 185,000 people. The SBWRP treats residential and industrial wastewater generated in the City of San Bernardino, City of Loma Linda, and the East Valley Water District.

The City permits the limited use of septic tanks, typically in older portions of the City or on large lot residential development. Any new septic systems must comply with the Santa Ana Regional Water Quality Control Board's minimum lot size requirements (currently one half acre).[39]

The San Bernardino Municipal Water Department (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. Groundwater from the Bunker Hill Basin is the primary source of water supply for the SBMWD. It has the capacity to provide 70,000 acre-foot per year of water from groundwater and surface water sources. While groundwater is the principal source of supply in the planning area, other sources of water supply include: the State Water Project (SWP), the Santa Ana River, Mill Creek, and Lytle Creek. The SBMWD distributes more than 16.66 billion gallons of water to over 151,000 residents in the City. The Department produces over 497 gallons per capita per day with the average consumption use reaching 330 gallons per capita per day. The distribution system includes approximately 551 miles of water mains, 41,317 active water meters and over 4,000 fire hydrants. SBMWD facilities also include 60 active wells, 4 treatment plants

[39] City of San Bernardino General Plan. Chapter 9: Utilities. 2005.

with capacity of 50 million gallons per day, 32 reservoirs with a total capacity of more than 100 MG of domestic storage water capacity, 27 chlorination facilities, and 66 booster pump stations.

The General Plan EIR includes Mitigation Measures 5.15-1 and 5.15-2 to address wastewater and water resources in the City. The proposed General Plan Amendments would not alter any land use that could increase development intensity and potentially create a greater impact than was already analyzed by the General Plan EIR. Therefore, the proposed General Plan Amendments are consistent with the current General Plan and the analysis included in the General Plan EIR. No additional water or wastewater facilities or expansions are proposed as part of the General Plan amendments. The City will identify the need for expansion of water and wastewater facilities, such as water and sewer mains, as needed, on a project-by-project basis during its standard environmental review process. Any environmental impacts related to the construction or expansion of water or wastewater facilities will be analyzed and mitigated for at the time of development. With adherence to these standard procedures, General Plan Water Conservation policies (Chapter 13), and General Plan EIR Mitigation Measures, impacts related to the expansion of water and wastewater facilities will be less than significant.

Water: General Plan EIR Mitigation Measure 15.15-1
In accordance with the State Water Code (Section 10610-10645), the City shall maintain an updated Urban Water Management Plan (Water System Management Plan) which describes and evaluates sources of supply, reasonable and practical efficient uses, reclamation and demand management activities, necessary to adequately serve future growth pursuant to the City's General Plan. The mitigation measures identified above would reduce potential impacts associated with water supply and distribution to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to water supply and distribution have been identified.

Wastewater: General Plan EIR Mitigation Measure 5.15-2 (p.5.15-15)
The City of San Bernardino shall update the Wastewater Collection System Master Plan to reflect General Plan Update build-out statistics, review treatment facility capacity periodically and adjust Sewer Capacity Fees when appropriate in consultation with participating communities to accommodate construction of new or expanded wastewater treatment and collection facilities. These mitigation measures would reduce potential impacts associated with wastewater to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to wastewater have been identified.

c) **Less than Significant Impact.** The updated Housing Element is focused on achieving local housing objectives and does not authorize any construction that would result in the construction of new storm water drainage facilities or the expansion of existing facilities. The Amendments to comply with State law SB 244 to identify existing unincorporated areas in San Bernardino's sphere, are intended to provide information but propose no new policy. These areas are fully developed and have access to infrastructure and services. No additional storm water drainage facilities or expansions are proposed as part of the General Plan amendments.

Drainage improvements are constructed on a project-by-project basis. This typically involves routing a major drainage course through a project by concentrating the flow into an acceptable drainage facility. Construction of drainage devices will be subject to standard construction requirements for erosion control and water quality requirements. Future development will comply with existing standards and regulations for conveyance of storm water; thus, impacts to the environment from construction of storm drain infrastructure will be less than significant.

d) **Less than Significant Impact.** Domestic water service to the City of San Bernardino and Sphere of Influence (SOI) is provided by the San Bernardino Municipal Water Department (SBMWD) and the East Valley Water District (EVWD). Groundwater from the Bunker Hill Basin is the primary source of water supply for the SBMWD.

The City's General Plan Utilities Chapter includes policies to ensure that water supply and demand are continually monitored and the Water Master Plan updated as needed to ensure that adequate supply continues to be provided. The proposed General Plan amendments would not result in any population growth or additional demand on water supplies beyond that which was considered in the General Plan EIR; rather, the Housing Element will guide development to accommodate anticipated growth in the community through the year 2021. Therefore, the proposed project would not result in the need for new or expanded water supplies, nor revise any policies associated with water supply or demand. The proposed General Plan Amendment does not include changes to land use policy set forth in the General Plan and analyzed in the EIR. Therefore, the proposed Housing Element and General Plan Amendment will not create an additional impact. Impacts will be less than significant with implementation of General Plan policies and EIR Mitigation Measures.

General Plan EIR Mitigation Measure 5.15-1 (p.15.5-8)
In accordance with the State Water Code (Section 10610-10645), the City shall maintain an updated Urban Water Management Plan (Water System Management Plan) which describes and evaluates sources of supply, reasonable and practical efficient uses, reclamation and demand management activities, necessary to adequately serve future growth pursuant to the City's General Plan. The mitigation measures identified above would reduce potential impacts associated with water supply and distribution to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to water supply and distribution have been identified.

e) **Less than Significant Impact.** Wastewater treatment requirements are established by the Santa Ana RWQCB. The City will review future development as part of the standard environmental review process to determine adequate capacity to serve the discharge needs in comparison to treatment plant capacity. Impacts related to wastewater treatment capacity are anticipated to be less than significant.

f) **Less than Significant Impact.** The Colton Sanitary Landfill and the Mid-Valley Sanitary Landfill are the primary destinations for solid waste collected in San Bernardino.[40] The current capacity for the Colton Sanitary Landfill is approximately 3,100 tons per day of solid waste. The current capacity for the Mid-Valley Sanitary Landfill is approximately 7,500 tons per day of solid waste. Although the Colton Sanitary Landfill is expected to end operations on January 2017 and the Mid-Valley Landfill is expected to close in April 2033, other landfills are available to serve the City. The San Timoteo Sanitary Landfill, located in Redlands, has a permitted daily capacity of 2,000 tons per day and a remaining capacity of 13,605,488 cubic yards. The San Timoteo Sanitary Landfill is estimated to close in 2043. Compliance with City General Plan policies and County waste reduction programs and policies would reduce the volume of solid waste entering landfills. Individual development projects would be required to comply with applicable State and local regulations, thus reducing the amount of landfill waste by at least 50 percent. Future development would increase the volume of solid waste generated that is diverted to existing landfills, thus contributing to the acceleration of landfill closures or the use of more distant sites. However, no revisions associated with the proposed General Plan amendments would affect the development assumptions and related impact conclusions as determined by the General Plan EIR. Impacts related to sufficient landfill capacity are anticipated to be less than significant.

g) **No Impact.** Waste collection in San Bernardino is disposed of in regional landfills, as described above. All new development will be required to comply with State mandates and local regulations regarding reduction/recycling of household waste. None of the proposed housing strategies inherent in the proposed Housing Element or information provided in the other General Plan Amendments would have any effect upon or result in any conflicts with solid waste disposal regulations, as the scope of these revisions does not increase development capacity. No impact will occur.

[40] California Department of Resources Recycling and Recovery (CalRecycle). http://www.calrecycle.ca.gov/LGCentral/Reports/DRS/Destination/JurDspFa.aspx [December 4, 2013]

4.18 - MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant 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?	☐	☐	☒	☐

a) **Less than Significant Impact.** The results of the preceding analysis indicate that the proposed project would have less than significant impacts upon sensitive biological, historical, archaeological, or paleontological resources. There will be less than significant impacts to scenic vistas and visual character and resources. Since the project would not authorize any development plan, redevelopment of any existing sites, or construction of new infrastructure, and would not change existing City land use policy regarding locations or intensities of development, it would not result in any effects that would degrade the quality of the environment. The City finds that impacts related to degradation of the environment will be less than significant.

b) **Less than Significant Impact.** Cumulative effects resulting from full implementation of the City's land use policies were evaluated in the General Plan EIR. The proposed General Plan Amendments would not change any of these policies and do not propose any specific development or redevelopment project that could contribute to short-term or long-term cumulative impacts that were not addressed sufficiently in the General

Plan EIR. The proposed project does not include any changes to land use designations and thus is consistent with the project analyzed in the General Plan EIR. The City finds that the contribution of the proposed project to cumulative impacts will be less than significant.

c) **Less than Significant Impact.** As supported by the preceding environmental evaluation, the project would not result in substantial adverse effects on human beings. Under each environmental consideration addressed in the preceding analysis, the proposed project is considered to have little or no adverse impacts on people and the environment. Based on the analysis in this Initial Study, the City finds that direct and indirect impacts to human beings will be less than significant.

Section 5: REFERENCES

5.1 - LIST OF PREPARERS

City of San Bernardino
Community Development Department
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300 N. "D" Street – 3rd Floor
San Bernardino, California 92418
909-384-5057

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Acting Community Development Director

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Olivia Young, Project Associate
Savannah Richards, Project Assistant

Appendix A Air Quality Data

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San Bernardino HE Proposed

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	4,845.00	Dwelling Unit	127.50	4,845,000.00	13857
Single Family Housing	9,158.00	Dwelling Unit	2,973.38	16,484,400.00	26192

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction proposed.

Woodstoves - No wood-burning

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10,000.00	0.00
tblFireplaces	NumberGas	4,118.25	4,360.50
tblFireplaces	NumberGas	7,784.30	8,242.20
tblFireplaces	NumberWood	242.25	0.00
tblFireplaces	NumberWood	457.90	0.00

tblProjectCharacteristics	OperationalYear	2014	2021
tblWoodstoves	NumberCatalytic	242.25	0.00
tblWoodstoves	NumberCatalytic	457.90	0.00
tblWoodstoves	NumberNoncatalytic	242.25	484.50
tblWoodstoves	NumberNoncatalytic	457.90	915.80

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	863.5094	69.3553	5,100.7774	11.2589		571.9825	571.9825		571.8045	571.8045	82,640.6425	268,960.8841	351,601.5266	455.0478	4.8928	362,674.3027
Energy	10.8537	92.7495	39.4679	0.5920		7.4989	7.4989		7.4989	7.4989		118,403.6010	118,403.6010	2.2694	2.1707	119,124.1856
Mobile	357.8491	940.1784	4,105.4190	13.8194	920.6665	17.4206	938.0871	246.0168	16.0685	262.0853		1,054,545.0515	1,054,545.0515	35.0654		1,055,281.4239
Total	**1,232.2121**	**1,102.2831**	**9,245.6643**	**25.6704**	**920.6665**	**596.9020**	**1,517.5685**	**246.0168**	**595.3719**	**841.3887**	**82,640.6425**	**1,441,909.5366**	**1,524,550.1791**	**492.3826**	**7.0635**	**1,537,079.9122**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	863.5094	69.3553	5,100.7774	11.2589		571.9825	571.9825		571.8045	571.8045	82,640.6425	268,960.8841	351,601.5266	455.0478	4.8928	362,674.3027
Energy	10.8537	92.7495	39.4679	0.5920		7.4989	7.4989		7.4989	7.4989		118,403.6010	118,403.6010	2.2694	2.1707	119,124.1856
Mobile	357.8491	940.1784	4,105.4190	13.8194	920.6665	17.4206	938.0871	246.0168	16.0685	262.0853		1,054,545.0515	1,054,545.0515	35.0654		1,055,281.4239
Total	1,232.2121	1,102.2831	9,245.6643	25.6704	920.6665	596.9020	1,517.5685	246.0168	595.3719	841.3887	82,640.6425	1,441,909.5366	1,524,550.1791	492.3826	7.0635	1,537,079.9122

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2014	12/31/2013	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Excavators	3	8.00	162	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	2	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	357.8491	940.1784	4,105.4190	13.8194	920.6665	17.4206	938.0871	246.0168	16.0685	262.0853		1,054,545.0515	1,054,545.0515	35.0654		1,055,281.4239
Mitigated	357.8491	940.1784	4,105.4190	13.8194	920.6665	17.4206	938.0871	246.0168	16.0685	262.0853		1,054,545.0515	1,054,545.0515	35.0654		1,055,281.4239

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	31,928.55	34,690.20	29409.15	109,222,964	109,222,964
Single Family Housing	87,642.06	92,312.64	80315.66	298,189,756	298,189,756
Total	119,570.61	127,002.84	109,724.81	407,412,720	407,412,720

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH

0.507717	0.059700	0.181648	0.140055	0.042936	0.006749	0.016265	0.033349	0.001955	0.002502	0.004345	0.000573	0.002206	

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	10.8537	92.7495	39.4679	0.5920		7.4989	7.4989		7.4989	7.4989		118,403.6010	118,403.6010	2.2694	2.1707	119,124.1856
NaturalGas Unmitigated	10.8537	92.7495	39.4679	0.5920		7.4989	7.4989		7.4989	7.4989		118,403.6010	118,403.6010	2.2694	2.1707	119,124.1856

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBtu/yr	lb/day										lb/day					
Apartments Mid Rise	159205	1.7169	14.6718	6.2433	0.0937		1.1862	1.1862		1.1862	1.1862		18,729.9658	18,729.9658	0.3590	0.3434	18,843.9532
Single Family Housing	847226	9.1368	78.0777	33.2246	0.4984		6.3127	6.3127		6.3127	6.3127		99,673.6353	99,673.6353	1.9104	1.8274	100,280.2324
Total		**10.8537**	**92.7495**	**39.4679**	**0.5920**		**7.4989**	**7.4989**		**7.4989**	**7.4989**		**118,403.6010**	**118,403.6010**	**2.2694**	**2.1707**	**119,124.1856**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBtu/yr	lb/day										lb/day					
Apartments Mid Rise	159.205	1.7169	14.6718	6.2433	0.0937		1.1862	1.1862		1.1862	1.1862		18,729.9658	18,729.9658	0.3590	0.3434	18,843.9532
Single Family Housing	847.226	9.1368	78.0777	33.2246	0.4984		6.3127	6.3127		6.3127	6.3127		99,673.6353	99,673.6353	1.9104	1.8274	100,280.2324
Total		**10.8537**	**92.7495**	**39.4679**	**0.5920**		**7.4989**	**7.4989**		**7.4989**	**7.4989**		**118,403.6010**	**118,403.6010**	**2.2694**	**2.1707**	**119,124.1856**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	863.5094	69.3553	5,100.7774	11.2589		571.9825	571.9825		571.8045	571.8045	82,640.6425	268,960.8841	351,601.5266	455.0478	4.8928	362,674.3027
Mitigated	863.5094	69.3553	5,100.7774	11.2589		571.9825	571.9825		571.8045	571.8045	82,640.6425	268,960.8841	351,601.5266	455.0478	4.8928	362,674.3027

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	45.7066					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	422.3221					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	360.4016	55.9907	3,943.0019	11.1979		565.6005	565.6005		565.4226	565.4226	82,640.6425	266,880.7059	349,521.3484	453.0320	4.8928	360,551.7919
Landscaping	35.0790	13.3646	1,157.7755	0.0610		6.3820	6.3820		6.3820	6.3820		2,080.1782	2,080.1782	2.0158		2,122.5108
Total	**863.5094**	**69.3553**	**5,100.7774**	**11.2589**		**571.9825**	**571.9825**		**571.8045**	**571.8045**	**82,640.6425**	**268,960.8841**	**351,601.5266**	**455.0478**	**4.8928**	**362,674.3027**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	45.7066					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	422.3221					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	360.4016	55.9907	3,943.0019	11.1979		565.6005	565.6005		565.4226	565.4226	82,640.6425	266,880.7059	349,521.3484	453.0320	4.8928	360,551.7919
Landscaping	35.0790	13.3646	1,157.7755	0.0610		6.3820	6.3820		6.3820	6.3820		2,080.1782	2,080.1782	2.0158		2,122.5108
Total	**863.5094**	**69.3553**	**5,100.7774**	**11.2589**		**571.9825**	**571.9825**		**571.8045**	**571.8045**	**82,640.6425**	**268,960.8841**	**351,601.5266**	**455.0478**	**4.8928**	**362,674.3027**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

San Bernardino HE Proposed

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	4,845.00	Dwelling Unit	127.50	4,845,000.00	13857
Single Family Housing	9,158.00	Dwelling Unit	2,973.38	16,484,400.00	26192

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction proposed.

Woodstoves - No wood-burning

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10,000.00	0.00
tblFireplaces	NumberGas	4,118.25	4,360.50
tblFireplaces	NumberGas	7,784.30	8,242.20
tblFireplaces	NumberWood	242.25	0.00
tblFireplaces	NumberWood	457.90	0.00

tblProjectCharacteristics	OperationalYear	2014	2021
tblWoodstoves	NumberCatalytic	242.25	0.00
tblWoodstoves	NumberCatalytic	457.90	0.00
tblWoodstoves	NumberNoncatalytic	242.25	484.50
tblWoodstoves	NumberNoncatalytic	457.90	915.80

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Area	863.5094	69.3553	5,100.7774	11.2589		571.9825	571.9825		571.8045	571.8045	82,640.6425	268,960.8841	351,601.5266	455.0478	4.8928	362,674.3027
Energy	10.8537	92.7495	39.4679	0.5920		7.4989	7.4989		7.4989	7.4989		118,403.6010	118,403.6010	2.2694	2.1707	119,124.1856
Mobile	367.6802	988.5369	4,042.2888	13.1233	920.6665	17.4702	938.1367	246.0168	16.1141	262.1309		1,004,506.5213	1,004,506.5213	35.1069		1,005,243.7671
Total	**1,242.0433**	**1,150.6417**	**9,182.5341**	**24.9742**	**920.6665**	**596.9515**	**1,517.6180**	**246.0168**	**595.4175**	**841.4343**	**82,640.6425**	**1,391,871.0064**	**1,474,511.6489**	**492.4242**	**7.0635**	**1,487,042.2554**

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Area	863.5094	69.3553	5,100.7774	11.2589		571.9825	571.9825		571.8045	571.8045	82,640.6425	268,960.8841	351,601.5266	455.0478	4.8928	362,674.3027
Energy	10.8537	92.7495	39.4679	0.5920		7.4989	7.4989		7.4989	7.4989		118,403.6010	118,403.6010	2.2694	2.1707	119,124.1856
Mobile	367.6802	988.5369	4,042.2888	13.1233	920.6665	17.4702	938.1367	246.0168	16.1141	262.1309		1,004,506.5213	1,004,506.5213	35.1069		1,005,243.7671
Total	**1,242.0433**	**1,150.6417**	**9,182.5341**	**24.9742**	**920.6665**	**596.9515**	**1,517.6180**	**246.0168**	**595.4175**	**841.4343**	**82,640.6425**	**1,391,871.0064**	**1,474,511.6489**	**492.4242**	**7.0635**	**1,487,042.2554**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2014	12/31/2013	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Excavators	3	8.00	162	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	2	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Unmitigated	367.6802	988.5369	4,042.2888	13.1233	920.6665	17.4702	938.1367	246.0168	16.1141	262.1309		1,004,506.5213	1,004,506.5213	35.1069		1,005,243.7671
Mitigated	367.6802	988.5369	4,042.2888	13.1233	920.6665	17.4702	938.1367	246.0168	16.1141	262.1309		1,004,506.5213	1,004,506.5213	35.1069		1,005,243.7671

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	31,928.55	34,690.20	29409.15	109,222,964	109,222,964
Single Family Housing	87,642.06	92,312.64	80315.66	298,189,756	298,189,756
Total	119,570.61	127,002.84	109,724.81	407,412,720	407,412,720

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507717	0.059700	0.181648	0.140055	0.042936	0.006749	0.016265	0.033349	0.001955	0.002502	0.004345	0.000573	0.002206

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	10.8537	92.7495	39.4679	0.5920		7.4989	7.4989		7.4989	7.4989		118,403.6010	118,403.6010	2.2694	2.1707	119,124.1856
NaturalGas Unmitigated	10.8537	92.7495	39.4679	0.5920		7.4989	7.4989		7.4989	7.4989		118,403.6010	118,403.6010	2.2694	2.1707	119,124.1856

5.2 Energy by Land Use - NaturalGas

Unmitigated

LandUse	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	kBtu/yr	lb/day										lb/day					
Apartments Mid Rise	159205	1.7169	14.6718	6.2433	0.0937		1.1862	1.1862		1.1862	1.1862		18,729.9658	18,729.9658	0.3590	0.3434	18,843.9532
Single Family Housing	847226	9.1368	78.0777	33.2246	0.4984		6.3127	6.3127		6.3127	6.3127		99,673.6353	99,673.6353	1.9104	1.8274	100,280.2324
Total		**10.8537**	**92.7495**	**39.4679**	**0.5920**		**7.4989**	**7.4989**		**7.4989**	**7.4989**		**118,403.6010**	**118,403.6010**	**2.2694**	**2.1707**	**119,124.1856**

Mitigated

LandUse	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	kBtu/yr	lb/day										lb/day					
Apartments Mid Rise	159.205	1.7169	14.6718	6.2433	0.0937		1.1862	1.1862		1.1862	1.1862		18,729.9658	18,729.9658	0.3590	0.3434	18,843.9532
Single Family Housing	847.226	9.1368	78.0777	33.2246	0.4984		6.3127	6.3127		6.3127	6.3127		99,673.6353	99,673.6353	1.9104	1.8274	100,280.2324
Total		***10.8537***	***92.7495***	***39.4679***	***0.5920***		***7.4989***	***7.4989***		***7.4989***	***7.4989***		**118,403.6010**	**118,403.6010**	**2.2694**	**2.1707**	**119,124.1856**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	863.5094	69.3553	5,100.7774	11.2589		571.9825	571.9825		571.8045	571.8045	82,640.6425	268,960.8841	351,601.5266	455.0478	4.8928	362,674.3027
Mitigated	863.5094	69.3553	5,100.7774	11.2589		571.9825	571.9825		571.8045	571.8045	82,640.6425	268,960.8841	351,601.5266	455.0478	4.8928	362,674.3027

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	45.7066					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	422.3221					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	360.4016	55.9907	3,943.0019	11.1979		565.6005	565.6005		565.4226	565.4226	82,640.6425	266,880.7059	349,521.3484	453.0320	4.8928	360,551.7919
Landscaping	35.0790	13.3646	1,157.7755	0.0610		6.3820	6.3820		6.3820	6.3820		2,080.1782	2,080.1782	2.0158		2,122.5108
Total	**863.5094**	**69.3553**	**5,100.7774**	**11.2589**		**571.9825**	**571.9825**		**571.8045**	**571.8045**	**82,640.6425**	**268,960.8841**	**351,601.5266**	**455.0478**	**4.8928**	**362,674.3027**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Subcategory	lb/day										lb/day					
Architectural Coating	45.7066					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	422.3221					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	360.4016	55.9907	3,943.0019	11.1979		565.6005	565.6005		565.4226	565.4226	82,640.6425	266,880.7059	349,521.3484	453.0320	4.8928	360,551.7919
Landscaping	35.0790	13.3646	1,157.7755	0.0610		6.3820	6.3820		6.3820	6.3820		2,080.1782	2,080.1782	2.0158		2,122.5108
Total	863.5094	69.3553	5,100.7774	11.2589		571.9825	571.9825		571.8045	571.8045	82,640.6425	268,960.8841	351,601.5266	455.0478	4.8928	362,674.3027

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

San Bernardino HE Proposed

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	4,845.00	Dwelling Unit	127.50	4,845,000.00	13857
Single Family Housing	9,158.00	Dwelling Unit	2,973.38	16,484,400.00	26192

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction proposed.

Woodstoves - No wood-burning

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10,000.00	0.00
tblFireplaces	NumberGas	4,118.25	4,360.50
tblFireplaces	NumberGas	7,784.30	8,242.20
tblFireplaces	NumberWood	242.25	0.00

tblFireplaces	NumberWood	457.90	0.00
tblProjectCharacteristics	OperationalYear	2014	2021
tblWoodstoves	NumberCatalytic	242.25	0.00
tblWoodstoves	NumberCatalytic	457.90	0.00
tblWoodstoves	NumberNoncatalytic	242.25	484.50
tblWoodstoves	NumberNoncatalytic	457.90	915.80

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	94.3051	2.3705	194.0095	0.1476		7.8678	7.8678		7.8655	7.8655	937.1291	3,262.2645	4,199.3937	5.3659	0.0555	4,329.2772
Energy	1.9808	16.9268	7.2029	0.1080		1.3686	1.3686		1.3686	1.3686	0.0000	45,073.8555	45,073.8555	1.5465	0.6016	45,292.8369
Mobile	59.7901	172.2532	697.1004	2.2678	154.4414	2.9764	157.4178	41.3314	2.7454	44.0768	0.0000	157,372.3410	157,372.3410	5.4313	0.0000	157,486.3977
Waste						0.0000	0.0000		0.0000	0.0000	2,632.2691	0.0000	2,632.2691	155.5627	0.0000	5,899.0846
Water						0.0000	0.0000		0.0000	0.0000	289.4471	5,228.2589	5,517.7060	29.9693	0.7517	6,380.0853
Total	**156.0760**	**191.5504**	**898.3128**	**2.5235**	**154.4414**	**12.2127**	**166.6541**	**41.3314**	**11.9795**	**53.3109**	**3,858.8453**	**210,936.7198**	**214,795.5652**	**197.8757**	**1.4088**	**219,387.6817**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	94.3051	2.3705	194.0095	0.1476		7.8678	7.8678		7.8655	7.8655	937.1291	3,262.2645	4,199.3937	5.3659	0.0555	4,329.2772
Energy	1.9808	16.9268	7.2029	0.1080		1.3686	1.3686		1.3686	1.3686	0.0000	45,073.8555	45,073.8555	1.5465	0.6016	45,292.8369
Mobile	59.7901	172.2532	697.1004	2.2678	154.4414	2.9764	157.4178	41.3314	2.7454	44.0768	0.0000	157,372.3410	157,372.3410	5.4313	0.0000	157,486.3977
Waste						0.0000	0.0000		0.0000	0.0000	2,632.2691	0.0000	2,632.2691	155.5627	0.0000	5,899.0846
Water						0.0000	0.0000		0.0000	0.0000	289.4471	5,228.2589	5,517.7060	29.9639	0.7506	6,379.6235
Total	**156.0760**	**191.5504**	**898.3128**	**2.5235**	**154.4414**	**12.2127**	**166.6541**	**41.3314**	**11.9795**	**53.3109**	**3,858.8453**	**210,936.7198**	**214,795.5652**	**197.8703**	**1.4077**	**219,387.2199**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.08**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2014	12/31/2013	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Excavators	3	8.00	162	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	2	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	59.7901	172.2532	697.1004	2.2678	154.4414	2.9764	157.4178	41.3314	2.7454	44.0768	0.0000	157,372.3410	157,372.3410	5.4313	0.0000	157,486.3977
Unmitigated	59.7901	172.2532	697.1004	2.2678	154.4414	2.9764	157.4178	41.3314	2.7454	44.0768	0.0000	157,372.3410	157,372.3410	5.4313	0.0000	157,486.3977

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	31,928.55	34,690.20	29409.15	109,222,964	109,222,964
Single Family Housing	87,642.06	92,312.64	80315.66	298,189,756	298,189,756
Total	119,570.61	127,002.84	109,724.81	407,412,720	407,412,720

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507717	0.059700	0.181648	0.140055	0.042936	0.006749	0.016265	0.033349	0.001955	0.002502	0.004345	0.000573	0.002206

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Mitigated	1.9808	16.9268	7.2029	0.1080		1.3686	1.3686		1.3686	1.3686	0.0000	19,603.0441	19,603.0441	0.3757	0.3594	19,722.3449
NaturalGas Unmitigated	1.9808	16.9268	7.2029	0.1080		1.3686	1.3686		1.3686	1.3686	0.0000	19,603.0441	19,603.0441	0.3757	0.3594	19,722.3449
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	25,470.8115	25,470.8115	1.1708	0.2422	25,570.4920
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	25,470.8115	25,470.8115	1.1708	0.2422	25,570.4920

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBtu/yr	tons/yr										MT/yr					
Apartments Mid Rise	5.81097e+007	0.3133	2.6776	1.1394	0.0171		0.2165	0.2165		0.2165	0.2165	0.0000	3,100.9559	3,100.9559	0.0594	0.0569	3,119.8278
Single Family Housing	3.09237e+008	1.6675	14.2492	6.0635	0.0910		1.1521	1.1521		1.1521	1.1521	0.0000	16,502.0882	16,502.0882	0.3163	0.3025	16,602.5171
Total		**1.9808**	**16.9268**	**7.2029**	**0.1080**		**1.3686**	**1.3686**		**1.3686**	**1.3686**	**0.0000**	**19,603.0441**	**19,603.0441**	**0.3757**	**0.3594**	**19,722.3449**

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBtu/yr	tons/yr										MT/yr					
Apartments Mid Rise	5.81097e+007	0.3133	2.6776	1.1394	0.0171		0.2165	0.2165		0.2165	0.2165	0.0000	3,100.9559	3,100.9559	0.0594	0.0569	3,119.8278
Single Family Housing	3.09237e+008	1.6675	14.2492	6.0635	0.0910		1.1521	1.1521		1.1521	1.1521	0.0000	16,502.0882	16,502.0882	0.3163	0.3025	16,602.5171
Total		**1.9808**	**16.9268**	**7.2029**	**0.1080**		**1.3686**	**1.3686**		**1.3686**	**1.3686**	**0.0000**	**19,603.0441**	**19,603.0441**	**0.3757**	**0.3594**	**19,722.3449**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.86767e+007	5,344.6531	0.2457	0.0508	5,365.5695
Single Family Housing	7.03301e+007	20,126.1584	0.9251	0.1914	20,204.9225
Total		**25,470.8115**	**1.1708**	**0.2422**	**25,570.4920**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.86767e+007	5,344.6531	0.2457	0.0508	5,365.5695
Single Family Housing	7.03301e+007	20,126.1584	0.9251	0.1914	20,204.9225
Total		**25,470.8115**	**1.1708**	**0.2422**	**25,570.4920**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	94.3051	2.3705	194.0095	0.1476		7.8678	7.8678		7.8655	7.8655	937.1291	3,262.2645	4,199.3937	5.3659	0.0555	4,329.2772
Unmitigated	94.3051	2.3705	194.0095	0.1476		7.8678	7.8678		7.8655	7.8655	937.1291	3,262.2645	4,199.3937	5.3659	0.0555	4,329.2772

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.3415					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	77.0738					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.5050	0.6999	49.2875	0.1400		7.0700	7.0700		7.0678	7.0678	937.1291	3,026.3763	3,963.5054	5.1373	0.0555	4,088.5885
Landscaping	4.3849	1.6706	144.7219	7.6300e-003		0.7978	0.7978		0.7978	0.7978	0.0000	235.8882	235.8882	0.2286	0.0000	240.6887
Total	**94.3051**	**2.3705**	**194.0095**	**0.1476**		**7.8678**	**7.8678**		**7.8655**	**7.8655**	**937.1291**	**3,262.2645**	**4,199.3937**	**5.3659**	**0.0555**	**4,329.2772**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Subcategory	tons/yr										MT/yr					
Architectural Coating	8.3415					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	77.0738					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.5050	0.6999	49.2875	0.1400		7.0700	7.0700		7.0678	7.0678	937.1291	3,026.3763	3,963.5054	5.1373	0.0555	4,088.5885
Landscaping	4.3849	1.6706	144.7219	7.6300e-003		0.7978	0.7978		0.7978	0.7978	0.0000	235.8882	235.8882	0.2286	0.0000	240.6887
Total	**94.3051**	**2.3705**	**194.0095**	**0.1476**		**7.8678**	**7.8678**		**7.8655**	**7.8655**	**937.1291**	**3,262.2645**	**4,199.3937**	**5.3659**	**0.0555**	**4,329.2772**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	5,517.7060	29.9693	0.7517	6,380.0853
Mitigated	5,517.7060	29.9639	0.7506	6,379.6235

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	315.671 / *199.01*	1,909.1113	10.3693	0.2601	2,207.4922
Single Family Housing	596.681 / 376.168	3,608.5947	19.6000	0.4916	4,172.5931
Total		**5,517.7060**	**29.9693**	**0.7517**	**6,380.0853**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	315.671 / 199.01	1,909.1113	10.3674	0.2597	2,207.3324
Single Family Housing	596.681 / 376.168	3,608.5947	19.5965	0.4909	4,172.2911
Total		**5,517.7060**	**29.9639**	**0.7506**	**6,379.6235**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2,632.2691	155.5627	0.0000	5,899.0846
Unmitigated	2,632.2691	155.5627	0.0000	5,899.0846

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	2228.7	452.4060	26.7364	0.0000	1,013.8709
Single Family Housing	10738.7	2,179.8631	128.8262	0.0000	4,885.2137
Total		**2,632.2691**	**155.5627**	**0.0000**	**5,899.0846**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	2228.7	452.4060	26.7364	0.0000	1,013.8709
Single Family Housing	10738.7	2,179.8631	128.8262	0.0000	4,885.2137
Total		**2,632.2691**	**155.5627**	**0.0000**	**5,899.0846**

9.0 Operational Offroad

Equipment Type	Fuel Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation