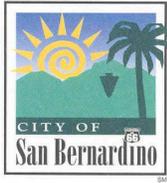


**SECTION 5.16
WATER**



5.16 WATER

This section identifies existing conditions within the City of San Bernardino and provides an analysis of potential impacts to water supplies and distribution systems that could result from implementation of the proposed project. This section is based on information obtained from the *General Plan Utilities Element*, the *San Bernardino Final General Plan Update and Associated Specific Plans Environmental Impact Report*, the *2007 City of San Bernardino Municipal Water Department Water Facilities Master Plan (Water Facilities Master Plan)*, the *2005 Urban Water Management Plan (UWMP)*, the San Bernardino Municipal Water Department (SBMWD), the *City of San Bernardino Municipal Code*, and the City of San Bernardino website.

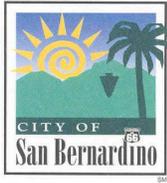
5.16.1 REGULATORY SETTING

URBAN WATER MANAGEMENT ACT

The Urban Water Management Plan Act (UWMP Act) was passed in 1983 and codified as California Water Code Sections 10610 through 10657. Since its passage in 1983, the Act has been amended on several occasions. In 2004, the Act was amended to require additional discussion of transfer and exchange opportunities, non-implemented demand management measures, and planned water supply projects. Most recently, in 2005, the Act was amended to require water use projections (required by California Water Code Section 10631) to include projected water use for single-family and multi-family residential housing needed for lower income households. In addition, Government Code Section 65589.7 was amended to require local governments to provide a copy of the adopted housing element to water and sewer providers. The Act requires “*every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet (AF) of water annually, to prepare and adopt, in accordance with prescribed requirements, an urban water management plan.*” Urban water suppliers must file these plans with the California Department of Water Resources every five years describing and evaluating reasonable and practical efficient water uses, reclamation, and conservation activities. As required by the Memorandum of Understanding Regarding Urban Water Conservation in California and Assembly Bill 11X (1991), the 2005 UWMP Act, incorporated water conservation initiatives, and a Water Shortage Contingency Plan.

SENATE BILL 610

SB 610 requires a detailed report regarding water availability and planning for additional water supplies that is included with the environmental document for specified projects. Under SB 610, water supply assessments are required to be included in environmental documentation for certain projects, as defined in Water Code 10912[a], subject to CEQA. Under SB 221, approval by a city or county of certain residential subdivisions requires a written verification of sufficient water supply. According to the San Gabriel County Water District, the Mission District Specific Plan project does not surpass the threshold criteria for compliance with SB 221 or SB 610. Thus, no future action is necessary under the provisions of SB 221 and 610. All projects that meet any of the following criteria require the water availability assessment:



- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A proposed hotel and motel having more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or an industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- A mixed-use project that includes one or more of the projects specified in this subdivision; or
- A project that would demand an amount of water equivalent to or greater than the amount of water required by a 500 dwelling unit project.

While SB 610 primarily affects the Water Code, SB 221 principally applies to the Subdivision Map Act. The primary effect of SB 221 is to condition every tentative map for an applicable subdivision on the applicant by verifying that the public water supplier (PWS) has sufficient water supply available to serve it. Under SB 221, approval by a city or county of certain residential subdivisions requires a written verification of sufficient water supply. SB 221 applies to any subdivision, defined as:

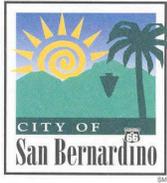
- A proposed residential development of more than 500 dwelling units (if the PWS has more than 5,000 service connections); or
- Any proposed development that increases connections by 10 percent or more (if the PWS has fewer than 5,000 connections).

2007 MUNICIPAL WATER DEPARTMENT WATER FACILITIES MASTER PLAN – SAN BERNARDINO

The *Water Facilities Master Plan* was developed to assist the San Bernardino Municipal Water Department in planning for the future, so that it can continue providing a reliable source of high quality water, in the most cost-effective manner, to both existing and future customers.

2005 URBAN WATER MANAGEMENT PLAN

The *Urban Water Management Plan (UWMP)* is an update of the previously prepared 2000 UWMP for the Planning Period 2000-2020 and takes into account new UWMP Act requirements and changes in demographics, water demand and supplies.



CITY OF SAN BERNARDINO MUNICIPAL CODE

Title 13, Public Utilities, Chapter 13.24 Water Supply System, of the City's *Municipal Code* was adopted by the City to assure that the water furnished or supplied by the domestic water supply system under the jurisdiction of the City shall at all times be pure, wholesome, potable, healthful, and in adequate supply and to provide minimum standards for construction, reconstruction, abandonment, and destruction of wells in order to protect underground water resources and provide safe water to persons within the City.

5.16.2 ENVIRONMENTAL SETTING

WATER SUPPLY^{1,2}

The San Bernardino Municipal Water Department (SBMWD) was created as a municipal utility by Article 9 of the City of San Bernardino Charter adopted on December 28, 1908. SBMWD is governed by a Board of Water Commissioners who members are appointed by the Mayor, subject to confirmations by the Common Council, and serve a six-year term. The Board was granted the authority and power to establish and collect all water rates, regulate and control the water system for the City. As an urban water supplier providing municipal and industrial water to approximately 40,000 accounts, SBMWD is required to comply with the UWMP Act. The SBMWD's mission is to meet customer's needs by providing high-quality water supply service in the most professional and cost-effective manner possible.

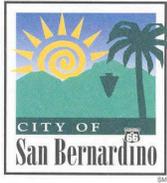
The SBMWD provides domestic water for the City and unincorporated areas of San Bernardino County as well as back-up to the City of Loma Linda. The SBMWD serves an area of approximately 45 square miles (approximately 29,000 acres) located approximately 60 miles east of the City of Los Angeles with 35,246 service connections. The SBMWD produces over 497 gallons per capita per day with the average consumption use reaching 330 gallons per capita per day. Currently, the SBMWD available groundwater supply is approximately 49,460 acre-feet per year (ac-ft/yr) or 16.1 billion gallons per year.³ Water services are provided for single-family, multiple-family, commercial, light industrial, governmental, and landscaping purposes. Other water agencies in the City include East Valley Water District (EVWD) to the east, Redlands Mutual, Loma Linda Municipal, Riverside, and Colton water providers to the south, and West San Bernardino and Rialto to the west; refer to Exhibit 5.16-1, Water Service Area Boundaries. A majority of the Project Area lies within the SBMWD service area.

Currently, SBMWD obtains 100 percent of its supply from groundwater wells in the Bunker Hill Basin. SBMWD's sources of supply consist of 60 groundwater wells and four groundwater treatment plants (Waterman Groundwater Treatment Plant, 19th Street Groundwater Treatment Plant, 17th Street and Sierra Way Groundwater Treatment Plant, and Newmark Groundwater Treatment Plant). The majority of the groundwater production wells are located in the southerly portion of the service area where the local aquifer is thicker and the hydrogeologic conditions are better. However, a significant number of wells are located in the northwestern portion of the

¹ *City of San Bernardino Municipal Water Department, 2005 Urban Water Management Plan*, prepared by CDM, dated December 2005.

² *City of San Bernardino Municipal Water Department Water Facilities Master Plan*, prepared by CDM, dated August 2007.

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



service area along the Cajon Wash.⁴ It should be noted that SBMWD delivers small quantities of water to EVWD for blending purposes as their source of supply exceeds the maximum contaminant level (MCL) established for drinking water standards for nitrate. In return for this water, EVWD delivers groundwater to SBMWD at a 2.5:1 ratio to compensate SBMWD for power costs associated with the difference in elevation at the delivery point and production costs.⁵

SBMWD's service area overlies a portion of the Bunker Hill Basin, also referred to as the San Bernardino Basin. Management and responsibility of the Bunker Hill Basin is coordinated through the San Bernardino Valley Municipal Water District (SBVMWD). The Basin contains in excess of five million ac-ft of high-quality water of which approximately 1.5 million ac-ft of water is currently extractable. The Basin is replenished naturally by local precipitation and by stream flow from rain and snow melt in the San Bernardino Mountains watershed. Water is also artificially recharged by rerouting stream flows to recharge percolation basins.⁶

Water Consumption⁷

SBMWD's billing system segregates accounts in three main groupings: water service, landscape service, and fire service. Each of these main groups is further subdivided into various categories. The water service category, which is generally subdivided into various residential groups, non-residential, municipal, and other smaller categories, represented 87 percent of the annual consumption during the 2000-05 period. Landscape service, which includes separate services for common landscaped areas, assessment districts, and golf courses, represented approximately 13 percent of total consumption. Fire service represented less than one tenth of one percent of the annual consumption during the period. Documented water consumption, billing, for residential purposed represented approximately two-thirds of total consumption in the service area during the 2003-05 period. Non-residential and municipal, including landscaping represented approximately 13 to 15 percent each with the remaining five to seven percent falling under the Other Category. Other includes wholesale deliveries to neighboring agencies, construction water from metered hydrants, the county hospital, and accounted use by the Fire Department.

Water Demand

In year 2005, the City's water demand was approximately 330 gallons of water per person per day (120,450 gallons per person per year). The Citywide total demand was approximately 61,182,330 gallons per day or 22,331,550,450 gallons per year (68,533 acre-feet per year).⁸ Existing supply sources are adequate to meet current demands.⁹

⁴ *City of San Bernardino Municipal Water Department Water Facilities Master Plan*, prepared by CDM, dated August 2007.

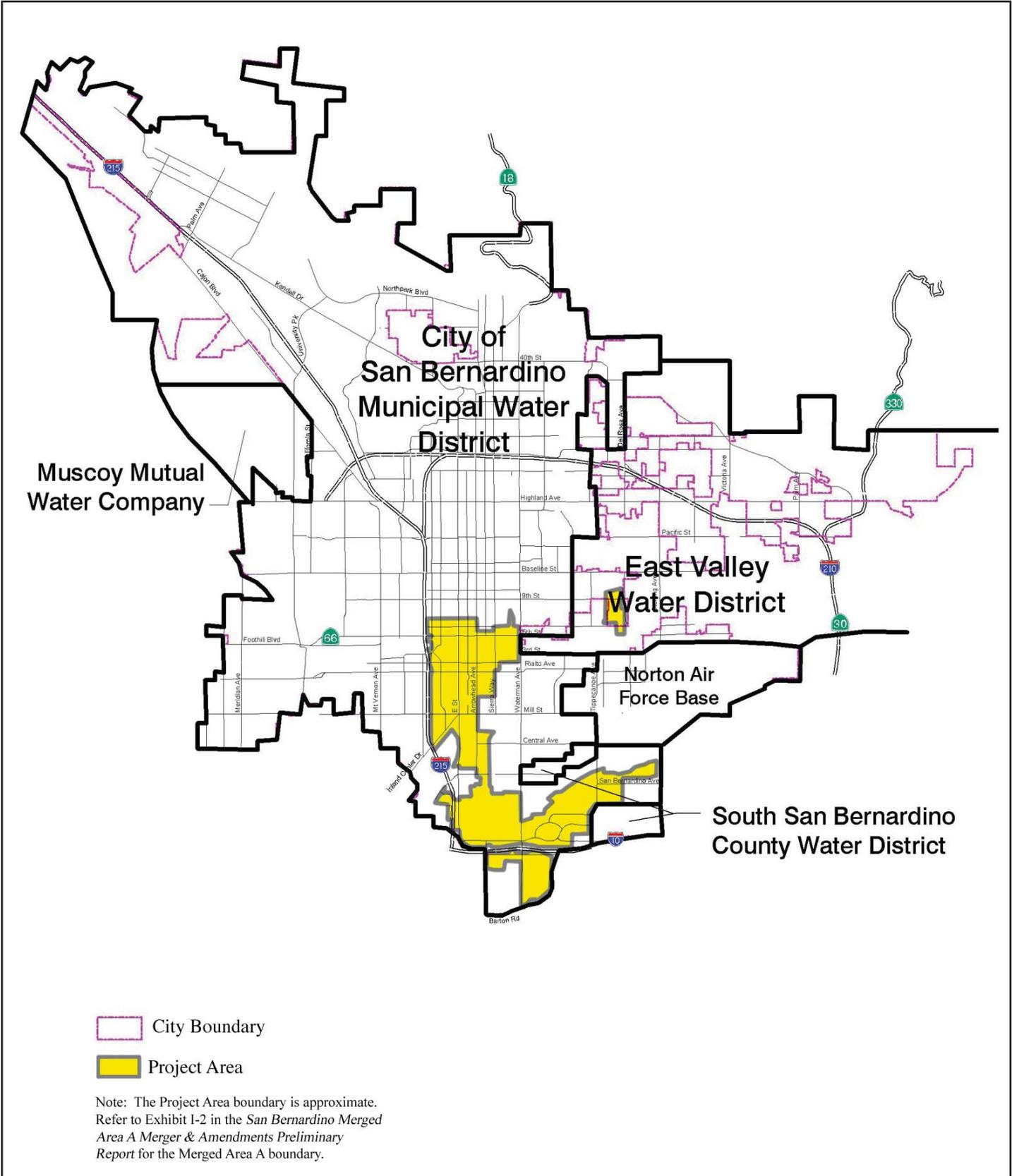
⁵ *City of San Bernardino Municipal Water Department, 2005 Urban Water Management Plan*, prepared by CDM, dated December 2005.

⁶ *City of San Bernardino Municipal Water Department Water Facilities Master Plan*, prepared by CDM, dated August 2007.

⁷ Ibid.

⁸ *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

⁹ *City of San Bernardino Municipal Water Department, 2005 Urban Water Management Plan*, prepared by CDM, dated December 2005.

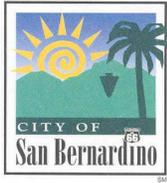


SOURCE: City of San Bernardino General Plan, November 1, 2005.

NOT TO SCALE



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Recycled/Reclaimed Water¹⁰

Currently, SBMWD does not use recycled water within its service area. Wastewater is treated at the San Bernardino Water Reclamation Plant to a secondary treatment level and then is conveyed to the Rapid Infiltration Extraction (RIX) Tertiary Treatment Facility in the City of Colton. The facility is jointly owned by SBWMD and the City of Colton and is operated under contract by the City of San Bernardino. RIX further treats the wastewater to a tertiary level. All treated effluent from the facility is discharged to the Santa Ana River.

SBMWD continues to explore opportunities to economically and feasibly utilize recycled water. SBMWD estimates that in the future it will be able to potentially recycle an additional 2.25 million gallons per day (MGD) or 2,519 acre feet per year (AF/Y) of water for use within its service area.

Future Water Supply Sources¹¹

Potential supply sources available to the SBMWD to meet projected annual and maximum day demands include the following:

- New groundwater wells in the northwestern portion of the service area;
- New groundwater wells in the lower and/or upper pressure zones that would require treatment to remove volatile organics;
- A new surface water treatment plant in the Devils Canyon area to treat imported water from the State Water Project; and
- Water obtained from the North Bunker Hill Basin Regional Water Supply Project and/or other regional supply projects implemented by SBVMWD.

WATER STORAGE¹²

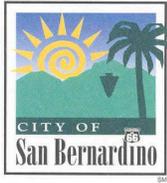
SBMWD currently has 35 storage facilities within the service area with a combined storage capacity of 109 million gallons (MG). The capacity of individual reservoirs ranges from 4,000 gallons as in the Daley Canyon pressure zone to 12 MG for the recently constructed B. Warren Cocke Reservoir in the lower zone. A larger majority of the storage facilities are above ground and are constructed of welded steel. Of the 35 active reservoirs, 20 have a storage capacity of 1.0 MG or larger. Most large reservoirs, greater than 5 MG, are made out of reinforced concrete and are either buried or partially buried. The oldest reservoir, Lytle Creek No. 1, was constructed in 1903 and the newest, B. Warren Cocke), was constructed in 2006, both of which are located in the lower pressure zone.

In addition to storage reservoirs that provide operations, emergency, and fire flow storage to the service area, the SBMWD has an additional 11 forebays or clear wells at selected wells. The

¹⁰ Ibid.

¹¹ *City of San Bernardino Municipal Water Department Water Facilities Master Plan*, prepared by CDM, dated August 2007.

¹² *City of San Bernardino Municipal Water Department Water Facilities Master Plan*, prepared by CDM, dated August 2007.



reservoirs have a relatively small storage capacity, less than 0.5 MG, and are used as holding tanks before water produced from wells is pumped directly into the system.

WATER DISTRIBUTION

The SBMWD distributes more than 16.66 billion gallons of water to over 151,000 residents in the City. The distribution system includes approximately 551 miles of water mains, 41,317 active water meters and over 4,000 fire hydrants. Much of the existing pipelines are either unlined, under sized, asbestos filled, or aging. SBMWD facilities also include 60 active wells, 4 treatment plants with capacity of 50 MGD, 32 reservoirs with a total capacity of more than 100 MG of domestic storage water capacity, 27 chlorination facilities, and 66 booster pump stations.¹³ There are approximately 630 miles of pipeline ranging from 2 to 78 inches in diameter. Roughly 46 percent of existing pipelines in the distribution system are 50 years old or older. Approximately one-half of these pipelines are located in the lower and upper pressure zones. There are around 68 miles of significantly undersized pipelines, less than 6 inches in diameter. The majority of undersized lines are in the lower and upper pressure zones.¹⁴ The Project Area lies entirely within the lower pressure zone.

Pumping Facilities¹⁵

SBMWD currently has 17 booster stations to pump water between forebays or pressure zones directly into the distribution system or storage reservoirs. Booster stations have a firm capacity of 200 gallons per minute (GPM) to over 10,000 GPM. Firm capacity is defined as the summation of individual pumping units, assuming the largest unit is not operational at the time of need. Individual pumping units range from a few hundred GPM to over 3,000 GPM.

Pressure Reducing Valves¹⁶

The major pressure regulating stations, pressure reducing valves, are used to reduce pressure and allow water to be transferred from a higher to a lower pressure zone. However, there are a number of valves that have been installed in the distribution system to reduce pressures within the individual zones to create small sub-zones. Generally, individual pressure reducing valves are set to remain in the closed position and open automatically when pressures in the downstream side of the valve fall below a preset value. Currently, there are over 50 pressure regulating valves in the distribution system.

5.16.3 SIGNIFICANCE THRESHOLD CRITERIA

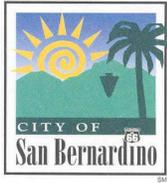
The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to water supply. The issues presented in the Initial Study

¹³ *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

¹⁴ *City of San Bernardino Municipal Water Department Water Facilities Master Plan*, prepared by CDM, dated August 2007.

¹⁵ *Ibid.*

¹⁶ *City of San Bernardino Municipal Water Department Water Facilities Master Plan*, prepared by CDM, dated August 2007.



Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements.

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

5.16.4 PROJECT IMPACTS AND MITIGATION MEASURES

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN INCREASED DEMAND FOR WATER SUPPLIES AND INFRASTRUCTURE WITHIN THE CITY.**

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Implementation of the proposed project would result in the addition of 1,833 dwelling units, 6,122 persons, 6,200,590 square feet of non-residential development, and 16,601 jobs beyond existing conditions. Future development associated with implementation of the proposed project would result in an increased demand for water supplies and infrastructure within the Project Area. However, this anticipated growth has been planned for within the *General Plan*. As indicated in *Table 5.16-1, Proposed Water Demand*, implementation of the proposed project would result in a demand for water supplies by 15,947,080,915 gallons per minute (gpm).

**Table 5.16-1
Proposed Water Demand**

Land Use	Proposed Development	Generation Factor	Water Demand
Residential	1,833 du	737 ¹	1,350,921 gpm
Commercial (Retail/Office/Lodging)*	5,681,674 sf	2,419 ²	13,743,969,406 gpm
Industrial	518,916 sf	4,243 ³	2,201,760,588 gpm
Total			15,947,080,915 gpm
<small>du = dwelling units gpm = gallons per minute s.f. = square feet mgd = million gallons per day Source: City of San Bernardino Municipal Water Department <i>Water Facilities Master Plan</i>, Table 3-3 Projected Water Demands, prepared by CDM, dated August 2007. 1. Applied generation factor for Residential Medium High. 2. Applied generation factor for Commercial General. 3. Applied generation factor for Industrial Light.</small>			



Water Supply

The SBMWD produces over 497 gallons per capita per day with the average consumption use reaching 330 gallons per capita per day. Currently, the SBMWD available groundwater supply is approximately 49,460 acre-feet per year (ac-ft/yr) or 16.1 billion gallons per year.¹⁷ The existing supply sources are adequate to meet current demands.¹⁸ According to the SBMWD, water shortages have not been experienced by the Department, nor are they anticipated within buildout of the *General Plan* based on current growth projections, hydrologic conditions, and the amount of groundwater in storage at the Bunker Hill Groundwater Basin.¹⁹ Furthermore, the SBVMWD is legally responsible to maintain the groundwater level in Bunker Hill at the designated safe yield, and is responsible to obtain water through other means such as local runoff to support the population within the San Bernardino Valley Basin.

The *General Plan* includes goals and policies to ensure adequate water supply accommodates new development planned in the City. Additionally, the focus of the *Water Facilities Master Plan* and the *UWMP* is to give highest priority for further development of local supplies, with imported water being used to meet the remaining needs. Included in the plans are a number of proposed water resource management strategies in order to increase production within its jurisdiction.²⁰ In addition, *Title 13, Public Utilities*, Chapter 13.24 Water Supply System, of the City's *Municipal Code* was adopted by the City to assure that the water furnished or supplied by the domestic water supply system under the jurisdiction of the City shall at all times be pure, wholesome, potable, healthful, and in adequate supply and to provide minimum standards for construction, reconstruction, abandonment, and destruction of wells in order to protect underground water resources and provide safe water to persons within the City.

Future development would be reviewed by the City on a project-by-project basis to ensure adequate water supplies are available to accommodate the future projects. Furthermore, the anticipated growth has been planned for within the *General Plan* and the City has anticipated having sufficient water supplies to meet the projected demand for buildout year 2030. As such, water supplies are anticipated to be adequate to serve the proposed project. With adherence to the *General Plan* goals and policies, the *Water Facilities Master Plan*, the *UWMP*, SB 610 and SB 221 requirements, and the City's *Municipal Code*, implementation of the proposed project would result in less than significant impacts to water supplies.

Water Infrastructure

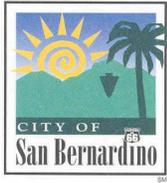
According to the *Water Facilities Master Plan* and the *UWMP*, the City's existing water distribution system is generally adequate in meeting demand. However, the system contains areas of piping that do not provide adequate service due to combinations of pipe age, under sizing, and levels of asbestos. The City's existing water storage capacity is adequate to meet fire flow and storage requirements. The increased water demand associated with the projected growth at buildout year 2030 of the *General Plan* could result in the need for new water supply

¹⁷ *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

¹⁸ *City of San Bernardino Municipal Water Department, 2005 Urban Water Management Plan*, prepared by CDM, dated December 2005.

¹⁹ *Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report*, prepared by The Planning Center, dated September 30, 2005.

²⁰ *Ibid.*



infrastructure and facilities. As noted earlier, according to the *Water Facilities Master Plan*, potential supply sources available to the SBMWD to meet projected annual and maximum day demands include the following:²¹

- New groundwater wells in the northwestern portion of the service area;
- New groundwater wells in the lower and/or upper pressure zones that would require treatment to remove volatile organics;
- A new surface water treatment plant in the Devils Canyon area to treat imported water from the State Water Project; and
- Water obtained from the North Bunker Hill Basin Regional Water Supply Project and/or other regional supply projects implemented by SBVMWD.

The *General Plan* includes goals and policies that require existing water distribution infrastructure to be replaced as needed to support existing and new development, as well as to maintain healthy and safe drinking water for all residents and businesses. New development would be required to pay its share of the costs of infrastructure improvements necessary to accommodate the project. The *General Plan* includes a policy that requires new development proposals to bear the cost to improve wastewater collection and treatment facilities, water supply transmission, distribution, storage, and treatment facilities, and storm drain and flood control facilities as necessitated by the proposed project. This shall be accomplished either through the payment of fees, or by the actual construction of the improvements. Additionally, the focus of the *Water Facilities Master Plan* and the *UWMP* is to give highest priority for further development of local supplies, with imported water being used to meet the remaining needs. Moreover, *Title 13, Public Utilities*, Chapter 13.24 Water Supply System, of the City's *Municipal Code* was adopted by the City to assure that the water furnished or supplied by the domestic water supply system under the jurisdiction of the City shall at all times be pure, wholesome, potable, healthful, and in adequate supply and to provide minimum standards for construction, reconstruction, abandonment, and destruction of wells in order to protect underground water resources and provide safe water to persons within the City. With adherence to the *General Plan* goals and policies, the *Water Facilities Master Plan*, the *UWMP*, and the City's *Municipal Code*, implementation of the proposed project would result in less than significant impacts to water infrastructure and facilities.

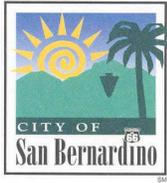
General Plan Goals and Policies:

UTILITIES ELEMENT

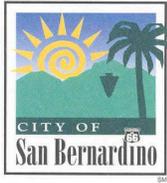
Goal 9.3 Provide water supply, transmission, distribution, storage, and treatment facilities to meet present and future water demands in a timely and cost effective manner.

Policy 9.3.1 Provide for the construction of upgraded and expanded water supply, transmission, distribution, storage, and treatment facilities to support existing and new development.

²¹ City of San Bernardino Municipal Water Department *Water Facilities Master Plan*, prepared by CDM, dated August 2007.



- Policy 9.3.2 Maintain and replace existing water supply, transmission, distribution, storage systems, and treatment facilities as necessary.
- Policy 9.3.3 Require adequate water supply, transmission, distribution, storage, and treatment facilities to be operational prior to the issuance of certificates of occupancy.
- Policy 9.3.4 Monitor the demands on the water system and, as necessary, manage development to mitigate impacts and/or facilitate improvements.
- Policy 9.3.5 Impose limits on new water hook-ups, if necessary, to comply with available domestic water supply.
- Policy 9.3.6 Request the Board of Water Commissioners to evaluate the Water System Master Plan, as necessary, to accurately determine which water facilities will be needed to serve present and future growth in the City.
- Policy 9.3.7 Request the Board of Water Commissioners to evaluate the Water System Master Plan, as necessary, to accurately determine which water facilities will be needed to serve present and future growth in the City.
- Goal 9.10 Ensure that the costs of infrastructure improvements are borne by those who benefit.**
- Policy 9.10.1 Require that new development proposals bear the cost to improve wastewater collection and treatment facilities, water supply transmission, distribution, storage, and treatment facilities, and storm drain and flood control facilities as necessitated by the proposed project. This shall be accomplished either through the payment of fees, or by the actual construction of the improvements.
- Policy 9.10.2 Collect adequate amounts of fees and charges to fund the operation/maintenance of existing facilities and to construct new facilities.
- Policy 9.10.3 Review utility, capacity, and infrastructure fees, as well as development, acquisition of service, and monthly service charges on an annual basis to ensure that adequate amounts of fees and charges are collected to fund the operation/maintenance of existing facilities and to construct new facilities.
- Policy 9.10.4 Provide public funding support for expansion and upgrading of public utilities and infrastructure when improvements will provide substantial public benefit to the City.
- Policy 9.10.5 Allow the formation of benefit assessment districts and community facilities districts, where appropriate, in which those who benefit from specific improvements pay a pro rata share of the costs.



SAFETY ELEMENT

Goal 10.4 Minimize the threat of surface and subsurface water contamination and promote restoration of healthful groundwater resources.

Policy 10.4.1 Promote integrated inter-agency review and participation in water resource evaluation and mitigation programs.

Policy 10.4.2 Protect surface water and groundwater from contamination.

Policy 10.4.3 Eliminate or remediate old sources of water contamination generated by hazardous materials and uses.

ENERGY AND WATER CONSERVATION ELEMENT

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

Policy 13.2.1 Coordinate and monitor the City's water conservation efforts on an annual basis and modify or expand them as necessary to ensure their effectiveness.

Policy 13.2.2 Require that development not degrade surface or groundwater, especially in watersheds, or areas with high groundwater tables or highly permeable soils.

Policy 13.2.3 Consider the establishment of incentives, funding programs, or a rebate program for projects that implement water conservation measures, such as replacing aging, leaking, and/or inefficient plumbing with more efficient, water-saving plumbing.

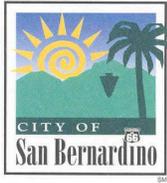
Policy 13.2.4 Require the use of reclaimed water for landscape irrigation and other non-contact uses for industrial projects, golf courses, and freeways.

Policy 13.2.5 Mitigate degradation of the groundwater basins that may have already occurred by existing commercial, industrial, and other uses.

Policy 13.2.6 Require the replacement of existing septic systems with connections to a sanitation collection and treatment system as a condition of reconstruction or reuse.

Policy 13.2.7 Require that new development incorporate improvements to channel storm runoff to public storm drainage systems and prevent discharge of pollutants into the groundwater basins and waterways.

Policy 13.2.8 Require that development in the City's watersheds incorporate adequate landscape and groundcover to prevent slope erosion and significant sedimentation of canyon drainages.



Mitigation Measures:

WAT-1 Prior to the issuance of a building permit for any future development project, the project applicant shall submit a hydraulic analysis to the San Bernardino Municipal Water Department to determine if water infrastructure upgrades (i.e., pipeline diameter increases for fire flow) are necessary. If the hydraulic analysis determines that upgrades are necessary, the project applicant shall be responsible for their fair-share of the improvements.

Level of Significance After Mitigation: Less Than Significant Impact.

5.16.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- ◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO WATER RESOURCES INCLUDING INCREASED DEMAND FOR WATER SUPPLIES AND INFRASTRUCTURE WITHIN THE CITY.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: Future development projects would be evaluated by the City of San Bernardino on a project-by-project basis to determine potential impacts to water supplies and infrastructure. The continued assessment of individual projects for impacts to the water supply system, would assure projects would only be approved if adequate water supplies exist at the time of their implementation. Impacts to water supplies and distribution would be mitigated to less than significant on a project-by-project basis. Additionally, the anticipated growth has been planned for within the *General Plan*. Furthermore, adherence to the *General Plan* goals and policies, the *Water Facilities Master Plan*, the *UWMP*, and the City's *Municipal Code* would further reduce any impacts regarding water supply and distribution to less than significant levels. Therefore, implementation of the proposed project would not result in cumulatively considerable water supply and infrastructure impacts.

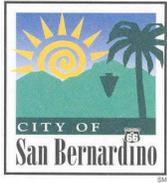
General Plan Goals and Policies: Refer to the goals and policies identified above.

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

Level of Significance After Mitigation: Not Applicable.

5.16.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Water supply and infrastructure impacts associated with the proposed project would less than significant with adherence to the *General Plan* goals and policies, the *Water Facilities Master Plan*, the *UWMP*, and the City's *Municipal Code*. Therefore, no significant unavoidable water supply or infrastructure impacts would occur as a result of the proposed project.



5.16.7 SOURCES CITED

City of San Bernardino General Plan, Chapter 9, Utilities Element, prepared by The Planning Center, dated November 1, 2005.

City of San Bernardino General Plan, Chapter 10, Safety Element, prepared by The Planning Center, dated November 1, 2005.

City of San Bernardino General Plan, Chapter 13, Energy and Water Conservation Element, prepared by The Planning Center, dated November 1, 2005.

City of San Bernardino Municipal Code, Revised November 2, 2009.

City of San Bernardino Municipal Water Department, *2005 Urban Water Management Plan*, prepared by CDM, dated December 2005.

City of San Bernardino Municipal Water Department, Mr. Michael Nevarez, Water Utility Engineer, Letter Correspondence, December 16, 2009.

City of San Bernardino Municipal Water Department *Water Facilities Master Plan*, prepared by CDM, dated August 2007.

City of San Bernardino Website, Water Department, <http://www.ci.san-bernardino.ca.us/depts/water/default.asp>, accessed March 24, 2010.

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