
3.16 - Utilities and Service Systems

3.16.1 - Introduction

This section describes (i) the existing utilities and service systems available to and serving the Project site and surrounding areas and (ii) the potential effects from Project implementation upon said utilities and services. Section 15125 of the State CEQA Guidelines requires EIRs to include a description of the physical environmental conditions in the area of a project that exist at the time that the Notice of Preparation (NOP) is circulated. These environmental conditions normally constitute the baseline physical conditions relative to which the CEQA lead agency evaluates the change in conditions that would result from project implementation. The NOP for this Draft EIR was issued on February 27, 2009. Therefore, environmental conditions as of February 2009 represent the baseline for CEQA purposes. To evaluate the footprint impacts of the Proposed Action (e.g., effects on Utilities), the conditions in 2009 are considered to be the baseline. Buildout of the Project is then added to existing conditions in order to determine whether Project implementation would substantially remove or impact the resources, thereby resulting in a significant impact on the environment. Data used to determine the baseline for utilities were derived from information contained in the City of Redlands General Plan, adopted in 1995 by the Redlands City Council, the Preliminary Water Quality Management Plan (WQMP) prepared by Adams Engineering on February 14, 2007 and consultation with the individual service providers that would service the Project site. Additional information was provided by the California Integrated Waste Management Board and the United States Environmental Protection Agency (U.S. EPA). Copies of the letters from the public service and utility providers are available in Appendix G. Therefore, data used to derive baseline conditions is based on existing conditions at the time of NOP issuance (February 27, 2009 through March 31, 2009) and are appropriate to use within the following analysis.

3.16.2 - Environmental Setting

Solid Waste

The City of Redlands Quality of Life Department will provide solid waste service to the Project site. Solid waste from Redlands is primarily disposed of at the California Street Landfill and the San Timoteo Sanitary Landfill. California Street Landfill (CSL) is located at 2151 Nevada Street and encompasses 115 acres. CSL is a Class II solid waste landfill, with total permitted daily throughput capacity of 829 tons. According to RMUED, the average daily disposal is approximately 320 tons per day with a closure date of 2041. San Timoteo Sanitary Landfill has permitted capacity of approximately 20.4 million cubic yards and the expected closure date is 2016. Table 3.11-1 provides a summary of each landfill. Combined, both landfills have more than 18 million cubic yards of remaining capacity.

Table 3.16-1: Landfill Summary

Landfill	Location	Cubic Yards		Closure Date
		Permitted Capacity	Remaining Capacity	
California Street Landfill	Redlands	10 million	6.8 million	2041
San Timoteo Sanitary Landfill	Redlands	20.4 million	11.4 million	2016

Source: California Integrated Waste Management Board, 2011.

Wastewater

RMUED will provide wastewater service to the Project site. The earliest sanitary sewers in Redlands were constructed around the turn of the century. Many of these sewers are still in service. The collection system consists of 250 miles of 6- to 48-inch sewers, most of which are constructed of vitrified clay pipe (VCP) with precast concrete manholes. The sewer system collects wastewater flow from 18,000 service connections as of 2005. The collection system covers 88 percent of the City with the rest of the area disposing of its wastewater into septic systems.

Wastewater generated within the sewer service area flows by gravity to the City's existing Water Reclamation Plant (WRP) with the exception of the area north of Barton Road and west of Nevada Street. Sewers in this area discharge to a pump station that pumps wastewater flows by one of two force mains to the WRP. The original wastewater treatment plant (WWTP) was constructed in 1963, and is located in the northwestern corner of the City, near the Santa Ana River. A major upgrade was recently completed at the WRP that converted the existing advanced secondary treatment process to a membrane bioreactor (MBR). This new plant is capable of producing up to 7.2 mgd of Title 22 certified recycled water. The existing flows into the WRP average 5.6 mgd. The overall capacity of the WRP is 9.5 mgd, with the inclusion of the still operational advanced secondary plant processes. The membrane plant currently delivers water to the Mountainview Power Plant for cooling tower purposes. Even though the Mountainview Power Plant utilizes the majority of the recycled water, many other users including a landfill (dust suppression), commercial irrigation, agricultural, and neighboring communities are planned.

Water

The City of Redlands receives its water from the following sources:

- Mill Creek Watershed: Water from the Mill Creek watershed is treated at the Henry Tate (Tate) Water Treatment Plant (WTP) located on Highway 38 east of Mentone.
- Santa Ana River Watershed: Water from the Santa Ana River watershed is treated at the Horace Hinckley WTP located north of Mentone.
- Local Groundwater: Local groundwater is pumped from wells in Redlands, Mentone, and Yucaipa.

- California State Water Project (SWP) Water: When required, SWP water is treated at the Horace Hinckley WTP and Tate WTP.

The City has four main supply sources available as described above. The potable wells can produce about 34 million gallons per day (mgd) of supply. The Horace Hinckley WTP currently can treat 14.5 mgd. The Tate WTP was recently upgraded to be able to treat SWP water in addition to Mill Creek water. The rated capacity of the plant is 20 mgd per day. The City is also planning to continue to implement a nonpotable system that will use nonpotable well water and reclaimed water for irrigation and other non-potable water uses such as power plant cooling towers. Several phases of this non-potable water system have been completed and are able to provide approximately 3.5 mgd. The City also has additional wells solely dedicated to irrigation use that have a design capacity of 9 mgd.

The City has numerous options for obtaining new potable water sources or managing demand. The potential options include (1) increased production of water from the groundwater basin through well rehabilitation, contaminated flow treatment, or new well construction; (2) increased conservation practices; (3) continued expansion of its reclaimed water system; or (4) purchase of additional water from the SWP. See Table 3.16-2 for current and planned water supplies for the City of Redlands.

Table 3.16-2: Current and Planned Water Supplies for Redlands

Source	2010	2015	2020	2025	2030
Wholesaler 1 (Valley District)	236	1,130	2,420	3,710	5,000
Supplier-produced groundwater	15,267	18,464	17,357	18,531	19,830
Supplier-produced surface water	13,762	15,000	15,000	15,000	15,000
Transfers in	0	0	0	0	0
Exchanges In	0	0	0	0	0
Recycled Water	2,214	2,214	3,040	3,290	3,290
Desalinated Water	0	0	0	0	0
Total	31,479	36,808	37,817	40,531	43,120

Source: 2010 San Bernardino Valley Regional Urban Water Management Plan, Table 9-35.
Current and Planned Water Supply Capacities (acre-feet).

Groundwater Supply

Redlands produces water from the Bunker Hill (also known as San Bernardino Basin) and Yucaipa Basins. The San Bernardino groundwater basin is governed by a court action from 1969 called the Western Judgment, to which Redlands stipulated. Provisions of the physical solution set forth in the Judgment Case No. 78426, Western Municipal Water District of Riverside County et al., vs. East San

Bernardino County Water District et al., entered April 17, 1969, in the superior Court of the State of California in and for the County of Riverside, established the entitlements and obligations of the Valley District and the Western Municipal Water District (WMWD) with regard to the Bunker Hill Basin area to be 232,000 AFY.

The adjusted right for use within Valley District is 167,238 AFY. The adjusted right for use within WMWD is 64,862 AFY. Should the extraction, or the withdrawal, or groundwater from the San Bernardino Basin Area exceed the safe yield, Valley District is obligated to recharge an amount equal to the amount the safe yield has been exceeded from an outside source of water. The outside source of water is typically SWP water. This judgment is administered by a Watermaster who prepares an annual report that is submitted to the court. Redlands produces between 15,000 to 22,000 AFY from the Bunker Hill Basin. As many as 20 potable groundwater wells located throughout the eastern and central areas of the Basin along with 2 wells in the area of Yucaipa are utilized to meet approximately 50 percent of the annual demand. Redlands currently has approximately 3.5 to 6.5 mgd of groundwater capacity in reserve and can meet current peak demands. However, depending on customer demand and sources available for blending, this reserve capacity can vary significantly. See Table 3.16-3 for projected groundwater pumping amounts to 2030.

Table 3.16-3: Projected Groundwater Pumping Amounts to 2030

Projected Groundwater Pumping Amounts to 2030 (acre-feet)				
Source	2015	2020	2025	2030
Bunker Hill	18,209	17,109	18,266	19,549
Yucaipa	256	248	265	281
<i>Total groundwater pumped</i>	18,465	17,357	18,531	19,830
<i>Percent of total water supply</i>	53%	50%	50%	50%
Source: 2010 San Bernardino Valley Regional Urban Water Management Plan, Table 9-27.				

Stormwater Drainage

The City’s RMUED is responsible for the planning, design, construction, and maintenance of any flood control facilities required for local drainage within City limits. Currently, there are three major drainage areas that are located on various portions of the Project site. The first area (Area 1), drains through the central portion of the Project site and discharges approximately 800 feet upstream, at the confluence of the Tennessee Street/Channel at San Bernardino Avenue. The second area (Area 2), also drains into the Tennessee Channel, approximately 670 feet upstream of the discharge of Area 1, and only includes 0.5 acre of the Project site. Finally, the third area (Area 3), the largest area, includes approximately 11.24 acres of the Project site and drains to the beginning of the concrete channel crossing the Project site. The drainage then enters the Tennessee Channel through a large curb opening in the southeastern corner of Tennessee St. at San Bernardino Ave.

Energy

Electricity

Southern California Edison (SCE) owns and operates Mountain View Power Plant located on the northeast corner of San Bernardino Avenue and Mountain View Avenue. SCE provides electricity to approximately 50,000 square miles of Southern California, including the City of Redlands. SCE obtains electricity from a variety of sources including its own generation plants and purchased power from outside sources. SCE has ownership stakes in the San Onofre (Orange County) and Palo Verde (Arizona) nuclear generation stations and owns the Big Creek Hydroelectric System (Fresno County). SCE purchases electricity from a variety of outside sources including natural gas, wind, geothermal, solar, and biomass generation facilities. SCE is currently in the process of implementing several major transmission system improvements in its service area to meet the electrical needs of planned growth.

Natural Gas

The Southern California Gas Company (Gas Company) provides natural gas service to most of Southern California, including the five counties comprising the Los Angeles metropolitan area. The Gas Company, a subsidiary of Sempra Energy, obtains most of its natural gas from out-of-state sources. The Rockies and the Southwestern United States account for most of the supply, which is conveyed to California via transmission pipelines owned by various private companies.

3.16.3 - Regulatory Framework

Federal Clean Water Act

The Clean Water Act (CWA), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality. The objective of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” Important applicable sections of the CWA are as follows:

- Section 301 prohibits the discharge of any pollutant by any person, except as in compliance with Sections 302, 306, 307, 318, 402, and 404 of the CWA. Sections 303 and 304 provide for water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for any federal permit that proposes an activity which may result in a discharge to “waters of the United States” to obtain certification from the State that the discharge will comply with other provisions of the Act. Certification is provided by the Regional Water Quality Control Boards (RWQCB).
- Section 402 establishes the National Pollution Discharge Elimination System (NPDES) a permitting system for the discharge of any pollutant (except for dredge or fill material) into waters of the United States. This permit program is administered by the RWQCB. Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the

United States. This permit program is administered by United States Army Core of Engineers (USACE).

California Porter-Cologne Water Quality Control Act

The State of California's Porter-Cologne Water Quality Control Act (California Water Code Section 13000, et seq.) provides the basis for water quality regulation within California. The Act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or otherwise) to land or surface waters that may impair a beneficial use of surface or groundwater of the State. Waste discharge requirements (WDR) resulting from the Report are issued by the RWQCB. In practice, these requirements are typically integrated with the NPDES permitting process.

The SWRCB carries out its water quality protection authority through the adoption of specific Water Quality Control Plans (Basin Plans). These plans establish water quality standards for particular bodies of water. California water quality standards are composed of three parts: the designation of beneficial uses of water, water quality objectives to protect those uses, and implementation programs designed to achieve and maintain compliance with the water quality objectives.

The SARWQCB is responsible for the Basin Plan that covers this portion of San Bernardino County including the Project site. The RWQCB implements management plans to modify and adopt standards under provisions set forth in section 303(c) of the Federal CWA and California Water Code (Division 7, Section 13240). Under Section 303(d) of the 1972 CWA, the State is required to develop a list of waters with segments that do not meet water quality standards.

California Water Code Section 10910-10915

California Water Code Section 10910 through 10915 requires that a Water Supply Assessment be prepared for any project with the following characteristics:

- A residential development of more than 500 dwelling units;
- A shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A proposed hotel or motel, or both, having more than 500 rooms;
- An industrial, manufacturing, or processing plant, or 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 above; and 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.

California Urban Water Management Planning Act

The Urban Water Management Planning Act (California Water Code §10610-10656) requires that all urban water suppliers prepare urban water management plans and update them every 5 years.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed Assembly Bill 939, the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. The legislation required each local jurisdiction in the State to set diversion requirements of 25 percent in 1995 and 50 percent in 2000; established a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities; and authorized local jurisdictions to impose fees based on the types or amounts of solid waste generated.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates privately owned telecommunication, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. It is the responsibility of the CPUC to assure California utility customers safe, reliable utility service at reasonable rates, protect utility customers from fraud, and promote a healthy California economy.

California's Energy Efficiency Standards for Residential and Nonresidential Buildings

Title 24, Part 6, of the California Code of Regulations establishes California's Energy Efficiency Standards for Residential and Nonresidential Buildings. The standards were updated in 2008 and set a goal of reducing growth in electricity use by 478 gigawatt-hours per year (GWh/y) and growth in natural gas use by 8.8 million therms per year (therms/y). The savings attributable to new nonresidential buildings are 163.2 GWh/y of electricity savings and 0.5 million therms. For nonresidential buildings, the standards establish minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), indoor and outdoor lighting, and illuminated signs.

City of Redlands General Plan

The City of Redlands General Plan establishes the following applicable policies related to public services and utilities:

- Policy 2.0d:** Encourage programs that will enable concurrent provision of necessary urban services prior to approval of development projects requiring services.

Policy 7.22a: Minimize dependence on imported water by increasing entitlement in local surface sources, using wise groundwater management practices, conservation measures, and the use of reclaimed wastewater and nonpotable water for irrigation of landscaping and agriculture, where feasible.

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Policy 7.23a: Conserve scarce or nonrenewable energy resources.

Policy 7.23c: Consider energy efficiency in architectural design.

Policy 7.23e: Minimize energy consumption attributable to transportation within the Planning Area.

Policy 7.23g: The City shall implement and enforce Title 24 building standards to improve energy efficiency in new or substantially remodeled construction.

Policy 7.23h: Encourage the investigation and utilization of alternative energy sources to be integrated in individual project designs.

Policy 7.24a: Reduce the generation of solid waste, including household hazardous waste, and recycle those materials which are used, to slow the filling of local and regional landfills.

Policy 7.24c: Meet the mandatory waste diversion goals set by the State of 25 percent by 1995 and 50 percent by 2,000; reduce landfill disposal of household hazardous waste as much as feasibly possible.

Policy 8.14b: Manage growth by ensuring the timely provision of infrastructure to serve new development.

Policy 8.16b: Reduce energy consumption through conservation improvements and requirements.

Policy 8.16d: Promote local recycling of wastes and use of recycled materials.

City of Redlands Water Efficient Landscape Requirements

The following City of Redlands Municipal Code Chapter 15.54, Water Efficient Landscape Requirements is applicable to the Project:

- A. That it is the policy of the City to promote the conservation and efficient use of water and to prevent the waste of this valuable resource.
- B. That Section 2 of Article X of the California Constitution specifies that the right to use water is limited to the amount reasonably required for the beneficial use to be served, and the right does not and shall not extend to waste or unreasonable method of use.
- C. Consistent with these findings, the purpose of this Chapter is to:
 1. Promote the values and benefits of landscapes while recognizing the need to use water and other resources as efficiently as possible;
 2. Establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes in new construction and rehabilitated projects;
 3. Establish provisions for water management practices and water waste prevention for existing landscapes;
 4. Use water efficiently without waste by setting a Maximum Applied Water Allowance as an upper limit for water use and reduce water use to the lowest practical amount.

City of Redlands Urban Water Management Plan

The 2010 San Bernardino Valley Regional Urban Water Management Plan establishes regional targets for developing water supply. UWMP addresses conservation, local supplies, State Water Project supplies, Santa Ana River and Mill Creek supplies, and water drawn from regional storage.

NOP Comment Letters

A Notice of Preparation (NOP) comment letter was provided by the County of San Bernardino Land Use Services Department on September 10, 2007. The Land Use Services Department stated that the provision of utilities should be evaluated in the EIR.

3.16.4 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether a Project may have a significant impact upon utilities, the following questions are to be analyzed and evaluated. Would the Project:

- 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 projects 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?

3.16.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Wastewater Treatment

Impact U-1	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
	[CEQA Utilities and Service Systems Threshold 17(a)]

Impact Analysis

Short-term construction and operation of the Project would marginally increase demands on wastewater treatment services within the City. The Redlands Municipal Utilities and Engineering Department (RMUED) treats wastewater treatment for the City of Redlands. The Project will tie in to the nearest wastewater line, which is located immediately adjacent to the site. The RMUED operates approximately 5.6 million gallons per day of wastewater treatment and has a capacity of 9.5 million gallons per day. Development of the Project will involve an on-site system for the collection of wastewater for conveyance to off-site public wastewater facilities. Wastewater conveyed from the site, totaling 4,910 gallons per day (see Impact U-2 for additional information in this regard) would ultimately reach RMUED's wastewater treatment facility, located south of the Santa Ana River and north of Nevada Street (Specifically located at 1950 N Nevada Street), where it would undergo treatment in accordance with applicable regulations, including the requirements of the Water Quality Control Plan, for Santa Ana Region 5. The Regional Board's regulatory tools include National Pollutant Discharge Elimination System permits, Waste Discharge Requirements, Water Reclamation Requirements, Water Quality Certification, and Waste Discharge Prohibitions. Implementation of the Project will be consistency with the aforementioned regulatory tools, ensuring that implementation of the Project will be consistent with the Santa Ana Region 5 Water Quality Control Plan and will not exceed wastewater treatment requirements of the Board. Therefore, impacts in this regard will be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation required.

Level of Significance After Mitigation

Less than significant.

Water or Wastewater Treatment Facilities

Impact U-2	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? [CEQA Utilities and Service Systems Threshold 17(b)]
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Impact Analysis

Water Treatment Facilities

The Project’s water consumption estimate is provided in Table 3.16-4. As shown in the Table 3.16-4, the Project is anticipated to demand 14,817 gallons of water on a daily basis.

Table 3.16-4: Water Consumption Estimate

Use	Daily Water Consumption (gallons)		
	Domestic	Irrigation	Total
Walmart	4,274	7,336	11,610
Outlots 1-9	1,181	2,026	3,207
Total	5,455	9,362	14,817

Notes:
Project water consumption estimates are based on a worst-case estimate from observed loads at existing Walmart stores (which include a Walmart store, grocery department and outparcels, including a car wash component), similar to the Project. Stores used in this analysis are located within the City’s of Anderson, Oxnard and San Jose. As a worst-case estimate, the three stores produced an average of 4,237,650 gallons per year of water during the year 2008 (as this year had the highest consumption of water out of the years 2008 through 2011). Water usage estimates are applied to the entire Project (i.e. 275,500 sq. ft.). Estimates based on 40 percent assumed for domestic and 60 percent assumed for irrigation. Source: MBA, 2011.

The 2010 San Bernardino Valley Regional Urban Water Management Plan concluded that sufficient water supply is available between 2010 and 2030 to serve all customers within the City of Redlands; refer to Table 3.16-2 (See Section 3.16.2, Existing Conditions, for Table 3.16-2). The Project is consistent with the Land Use and Zoning designations for the Project site and will therefore be served with adequate long-term water supply. In addition, as previously outlined within Table 3.16-2, the current and planned water supplies for the City of Redlands includes 31,479-acre feet per year for the year 2010 and 43,120-acre feet per year for the year 2030. Consequently, implementation of the Project will consume approximately 0.00000014 to 0.00000011 percent of the available water supply for the year 2010 and 2030, respectively. Therefore, implementation of the Project will not require or result in the construction of new water treatment facilities or expansion of the existing facility.

Wastewater Treatment Facilities

As the Project site is currently undeveloped, implementation of the proposed Project would require wastewater treatment over and above the pre-developed condition. No project specific wastewater

generation rates were available for the proposed project. Typically, wastewater generation can be up to 70 to 90 percent of consumption. Using a conservative estimate of 90 percent, the Project’s daily wastewater generation estimate is provided in Tale 3.16-5. As shown in the Table 3.16-5, the Project is anticipated to generate 4,910 gallons of water on a daily basis. This figure is based on the assumption that wastewater represents 90 percent of domestic water use, which is consistent with industry standards and based on the applicant’s submittal materials.

Table 3.16-5: Wastewater Generation Estimate

Use	Domestic Water Consumption	Wastewater Generation
Walmart	4,274	3,847
Outlots 1-9	1,181	1,063
Total	5,455	4,910
Notes: Domestic water consumption figures obtained from Table 3.16-4. Wastewater generation assumed to represent 90 percent of domestic water consumption (which include a Walmart store, grocery department and outparcels, including a car wash component). Source: MBA, 2011.		

The proposed development will include an on-site system for the collection of wastewater and conveyance to off-site existing WRP. The existing wastewater flows for the City’s WRP are approximately 5.6 mgd. The overall capacity of the WRP is 9.5 mgd. Consequently, implementation of the Project will increase wastewater generation by approximately 0.001 percent over the existing 5.6 mgd, which is well below the 9.5 mgd overall capacity of the WRP. Therefore, implementation of the Project will not require or result in the construction of new wastewater treatment facilities or expansion of the existing facility.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation required.

Level of Significance After Mitigation

Less than significant.

Stormwater Drainage Facilities

Impact U-3	<p>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?</p> <p>[CEQA Utilities and Service Systems Threshold 17(c)]</p>
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Impact Analysis

The proposed development of the site will result in an incremental increase in stormwater. The infiltration of the presently undeveloped site will be decreased by construction of the Project, which will be covered by impervious surfaces. Currently, the Project site does not have any stormwater drainage facilities and so will require the expansion of the existing local storm water drainage system. The Project design include various features (underground infiltration basins, several vegetated swales, vegetative buffers and surface level infiltration basin) which will reduce the potential storm water runoff and/or the velocity of such runoff from the Project site. Development will also require coverage under SWRCB NPDES permit, General Permit for Storm Water Discharges Associated with Construction Activity (Construction Activity General Permit), since the Project will disturb more than one acre of the land.

Therefore, compliance with all applicable stormwater regulations and incorporation of appropriate storm water control features in the Project design will reduce the impacts related to capital improvements of stormwater facilities to less than significant level.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation required.

Level of Significance After Mitigation

Less than significant.

Water Supplies

**Impact U-4 Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?
[CEQA Utilities and Service Systems Threshold 17(d)]**

Impact Analysis

California Water Code Section 10910 through 10915 requires that a Water Supply Assessment be prepared for any project containing a shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space. The Project proposes to develop 215,000 square feet for the proposed Walmart, 60,500 square feet for outparcels 1-9, totaling 275,500 square feet. In addition, implementation of the Project will generate approximately 436 new jobs. Therefore, the Project is below the 500,000 square feet of floor use, 1,000-employee and is not required to provide a Water Supply Assessment.

Water consumption would be consumed from short-term construction activities and long-term operational activities. Short-term construction water consumption from development of the proposed Project would be spread out over the length of construction activities and would not occur all at once.

The actual volume of water consumption of at any one time is not expected to pose a significant impact to water supply.

The Project will tie in to the nearest water line, which is located immediately adjacent to the site. The Project's water consumption estimate is provided in Table 3.16-4 (see Impact Analysis U-2). As shown in the Table 3.16-4, the Project is anticipated to demand 14,817 gallons of water on a daily basis. As previously described, the 2010 San Bernardino Valley Regional Urban Water Management Plan concluded that sufficient water supply is available between 2010 and 2030 to serve all customers within the City of Redlands; refer to Table 3.16-2 (See Section 3.16.2, Existing Conditions, for Table 3.16-2). The Project is consistent with the Land Use and Zoning designations for the Project site and will therefore be served with adequate long-term water supply. In addition, as previously outlined within Table 3.16-2, the current and planned water supplies for the City of Redlands includes 31,479-acre feet per year for the year 2010 and 43,120-acre feet per year for the year 2030. Consequently, implementation of the Project will consume approximately 0.00000014 to 0.00000011 percent of the available water supply for the year 2010 and 2030, respectively..

In addition, the Project would reduce its demand on water supply through the implementation of various indoor and outdoor water conservation measures detailed in the Project's sustainability features discussed in detail in Section 2, Project Description. Specifically, water conservation measures recommended by the California Department of Water Resources, as well as the City's landscape ordinance, will be incorporated into the Project as appropriate, including but not limited to: a) low flush toilets of no greater than 1.6 gallons per flush and b) keeping water pressure at 55 pounds per inch or less. Some portion of the landscaping, especially shrubs and trees, may be native species or species that are adapted to drought conditions. However, the commercial nature of the project means that a good portion of each lot will likely be asphalt, concrete, and minimal turf, which will have a "low" water consumption.

Additionally, mitigation measure MM HWQ-2a through HWQ-2c requires the applicant to install outdoor irrigation and indoor domestic water conservation measures and practices and plumb landscaped areas with "purple pipe" prior to issuance of the certificate of occupancy for the Walmart store to allow for recycled water irrigation. These measures would reduce overall Project demand for potable water and ensure that long-term water supply impacts are less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

See No mitigation required.

Level of Significance After Mitigation

Less than significant impact.

Wastewater Treatment Capacity

Impact U-5	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? [CEQA Utilities and Service Systems Threshold 17(e)]
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Impact Analysis

The Project's daily wastewater generation estimate is provided in Tale 3.16-5 (see Impact Analysis U-2). As shown in the Tale 3.16-5, the Project is anticipated to generate 4,910 gallons of water on a daily basis. This figure is based on the assumption that wastewater represents 90 percent of domestic water use, which is consistent with industry standards and based on the applicant's submittal materials. The Proposed development will include an on-site system for the collection of wastewater and conveyance to off-site existing WRP. The existing wastewater flows for the City's WRP are 5.6 mgd. The overall capacity of the WRP is 9.5 mgd. Consequently, implementation of the Project will increase wastewater generation by approximately 0.001 percent over the existing 5.6 mgd, which is well below the 9.5 mgd overall capacity of the WRP. Therefore, the City of Redlands WRP will have adequate capacity to serve the Project and impacts in this regard will be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation required.

Level of Significance After Mitigation

Less than significant.

Landfill Capacity

Impact U-6	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? [CEQA Utilities and Service Systems Threshold 17(f)]
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Impact Analysis

The City of Redlands Quality of Life Department will provide solid waste service to the Project site. According to the East Valley Corridor Specific Plan EIR (October 1988), buildout of the Specific Plan would contribute to a significant and unavoidable impact towards solid waste. However, since 1988, solid waste from Redlands is primarily disposed of at the California Street Landfill and the San Timoteo Sanitary Landfill.

Solid waste would be generated by short-term construction activities and long-term operational activities. Short-term construction waste generation from development of the proposed Project would be spread out over the length of construction activities and would not occur all at once. The actual volumes of construction waste disposed of at any one time is not expected to be more than 1 or 2 tons of debris and would not pose a significant impact to landfill capacity.

California Integrated Waste Management Board (CIWMB 2011) provides the estimates for a standard commercial/retail waste generation rate to be 4.8 pounds per square foot per year. Based on CWIMB solid waste generation rate, the Project would generate roughly 661 tons of solid waste per annum (4.8 pounds by 275,500 square feet). California Street Landfill and San Timoteo Sanitary Landfill have a combined remaining capacity of more than 16 million cubic yards. The potential impact associated with the solid waste generated from the Project is less than significant in comparison to the total remaining capacity of landfill sites.

In addition, actual solid waste generation would be expected to be less than 661 tons per annum as Walmart stores are equipped with recycling facilities and are designed to limit waste of recyclable material by implementing innovative strategies.

Walmart stores are equipped to recycle the following materials:

- Aluminum;
- Plastic (including bottles, bags, garment bags, shrink wrap, and bubble pack);
- Glass;
- Cardboard;
- Vegetable oil;
- Single-use cameras;
- Electronic waste; and
- Silver (from photo processing).

Similarly, followings are some of the innovative strategies implemented to limit waste as standard features:

- All cardboard generated from delivery packages is segregated and sent to a recycling center.
- Each new store has an indoor tank used to collect oil from cooking processes for recycling.
- All Walmart photo processing centers recycle single-use cameras after photo processing.
- Walmart collects and segregates all recyclable bottles and cans.
- Walmart currently implements a chain wide program for “sandwich bale” recycling of plastics, e.g., bags, garment bags, shrink wrap, bubble pack, etc.
- Walmart photo labs capture silver from the photo processing.

Therefore, as discussed above the landfill sites serving the Project has sufficient permitted capacity to accommodate the Project’s solid waste disposal need and impacts in this regard will be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation required.

Level of Significance After Mitigation

Less than significant.

Legal Compliance for Solid Waste

Impact U-7	Comply with federal, state, and local statutes and regulations related to solid waste?
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[CEQA Utilities and Service Systems Threshold 17(g)]

Impact Analysis

The Project will be required to abide by all federal, state and local statutes and regulations regarding solid waste. The Project does not contemplate or anticipate short-term construction or long-term operational activities/uses that would exceed or otherwise require special consideration in relation to compliance with relevant solid waste handling/disposal statutes and regulations. In addition, on January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code, which went into effect on January 1, 2011. The Code is a comprehensive and uniform regulatory code for all residential, commercial and school buildings. The California Green Building Standards Code requires a minimum 50-percent diversion of construction and demolition waste from landfills, increasing voluntarily to 65 and-75 percent for new homes and 80-percent for commercial projects. Most of the Walmart would be constructed using 100 percent-recycled steel. In addition, all of the plastic baseboards, and much of the plastic shelving, are manufactured from recycled material. The Walmart store would also be equipped to accept the following materials for recycling: aluminum; plastic (including bottles, bags, garment bags, shrink wrap, and bubble pack); glass; cardboard; vegetable oil; motor oil; tires; auto batteries; single-use cameras; electronic waste; silver (from photo processing). Therefore, impacts in this regard will be less than significant and no mitigation is required.

Furthermore, a Phase II ESA was conducted at the Project site located on the 20-acre portion of land at the west corner of the Project site, adjacent to Tennessee Street and San Bernardino Avenue. The purpose of the Phase II ESA was to collect and analyze soil samples in selected areas of the Project site to identify the presence or confirm the absence of pesticides contamination at those locations and screen any detected chemicals for potential risk. The Phase II ESA concluded that with exception of two soil samples, all soil samples contained detectable concentrations of (Dichlorodiphenyldichloroethylene) DDE. In addition, with exception to four soil samples, all analyzed soil samples contained detectable concentrations of (Dichlorodiphenyltrichloroethane) DDT. However, according to the Phase II ESA, all detected pesticide concentrations (DDE and DDT) are well below their respective residential soil (1.7 mg/kg) and industrial soil (7 mg/kg) EPA Preliminary Remediation Goals (PRG). Therefore, the reported pesticide concentrations are significantly below the PRGs established by the EPA and may likely represent ambient “background” concentrations.

Therefore, development of the Project will not include the transfer of soils to an off-site location eligible to accept contaminated soils.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation required.

Level of Significance After Mitigation

Less than significant.