

4.16 UTILITIES AND SERVICE SYSTEMS

This section evaluates the proposed project's potential impacts to solid waste, wastewater, water supply, and stormwater drainage utilities and service systems and the potential impacts to the environment resulting from the construction of new or expanded utilities. This section is divided differently than other sections. Each of the utilities and service systems' issues is fully discussed separately with respect to existing setting, existing policies and regulations, thresholds of significance, and impacts.

4.16.1 Solid Waste Services

Existing Setting for Solid Waste Services

Solid waste from the proposed project will be collected and transported to the Landers Landfill located approximately 10 miles northwest of the project site. This landfill is owned and operated by the County of San Bernardino Solid Waste Management Division. Waste disposal service is mandatory within the Town of Yucca Valley. Service is provided through Waste Management of the Hi-Desert, the Town's franchise hauler, and is offered for all residential and commercial entities within the Town limits.¹ Hazardous waste items are disposed of at 62499 Twentynine Palms Highway in Joshua Tree. The facility is open the third Saturday of every month from 9:00 a.m. to 1:00 p.m.²

The Landers Landfill is designated as a Class III landfill. Class III landfills are required to be located where adequate separation can be provided between non-hazardous solid waste and surface and subsurface waters. This class of landfill is not permitted to accept hazardous waste. Waste types accepted at the Landers Landfill include construction/demolition, industrial, mixed municipal waste, sludge, and tires.

The permitted capacity of the Landers Landfill totals 3,080,000 cubic yards of solid waste. As of July 2001, remaining capacity at the Landers Landfill equaled approximately 463,785 cubic yards. Based on the California Integrated Waste Management Board (CIWMB) Solid Waste Information System (SWIS) database, this landfill is permitted to accept a maximum of 1,200 tons of solid waste per day.³ The Landers Landfill is currently accepting an average of approximately 386 tons of solid waste per day⁴. Based on current permitted disposal rates and capacity, the Landers Landfill is expected to reach capacity by January 2008. According to the San Bernardino County Solid Waste Division, although the CIWMB lists a closure date of 2008, the Division will apply for an expansion of the Landers Landfill to re-permit the landfill before the closure date. While the Landers Landfill will reach its current permitted capacity in 2008, the landfill will be re-permitted and expanded.

¹ Town of Yucca Valley, Solid Waste Recycling Division, <http://www.yucca-valley.org/townhall/solidwaste.html>, September 7, 2005.

² Town of Yucca Valley, Solid Waste/Recycling FAQs, http://www.yucca-valley.org/about/swr_faq.html, September 7, 2005.

³ California Integrated Waste Management Board (CIWMB) Solid Waste Information System (SWIS), <http://www.ciwmb.ca.gov/SWIS>, website accessed February 2006.

⁴ Based on daily average for May 2006. Personal communication, Tracey Anthony, Associate Planner, San Bernardino County Solid Waste Management Division, June 7, 2006.

Existing Policies and Regulations for Solid Waste Services

Assembly Bill (AB) 939, California Integrated Waste Management Act. This State act was signed into law in 1989 and established a 50-percent waste reduction requirement for cities and counties by the year 2000, along with a process to ensure environmentally safe disposal of waste that could not be diverted. Jurisdictions select and implement the combination of waste prevention, reuse, recycling, and composting that best meets the needs of their residents while achieving the diversion requirements of the Act. Cities and counties also have the flexibility to work cooperatively toward the 50-percent goal by forming a regional agency. According to the provisions of the Act, in the year 2000, waste-to-energy or biomass conversion may contribute 10 percent toward the goal, with the remaining 40 percent accomplished through source reduction, recycling, and composting. The statute also allows a time extension to meet these goals for cities and counties that experience adverse market or economic conditions.

AB 1327, California Solid Waste Reuse and Recycling Access Act of 1991. Signed into law in 1991, this bill added Chapter 18 to Part 3 of Division 30 of the Public Resources Code. Chapter 18 required the CIWMB to develop a model ordinance for adoption of recyclable materials in development projects. Local agencies were then required to adopt the model, or an ordinance of their own, to govern adequate areas for collection and loading of recyclable materials in development project by September 1, 1993. If a local agency had not adopted a model ordinance by that date, the CIWMB model would be adopted and enforced by the local agency.

Town of Yucca Valley Comprehensive General Plan Policies. The General Plan contains goals and policies related to solid waste in the public utilities goal, policies, and programs section. Policy 6 of the Public Buildings, Facilities, and Utilities Element is relevant to the proposed project:

Policy 6 Implement AB 939 through the Source Reduction and Recycling Element and make every effort to reduce 25 percent of its solid waste by 1995 and 50 percent by 2000.

Solid Waste Services Thresholds of Significance

A project is considered to have a significant impact on solid waste services, according to Appendix G of the *CEQA Guidelines*, if the proposed project:

- Would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs
- Would fail to comply with applicable federal, state, and local statutes and regulations related to solid waste.

Solid Waste Services Impacts and Mitigation Measures

Less Than Significant Impacts. The following solid waste impacts were determined to be less than significant because either no impact or a less than significant impact would occur (and, therefore, no

mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

Threshold	Would the proposed project be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?
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Solid waste collection is a "demand-responsive" service, and current service levels can be expanded and funded through user fees without difficulty. Based on CIWMB waste generation characteristics, the proposed on-site uses will generate approximately 1,646 pounds¹ (0.82 ton) of solid waste per day.

Solid waste from the proposed on-site use will be collected and transported to the Landers Landfill located approximately 10 miles northwest of the project site. Based on the CIWMB Solid Waste Information System database, this landfill is permitted to accept a maximum of 1,200 tons of solid waste per day, and the landfill is currently accepting an average of approximately 386 tons/day, resulting in a surplus capacity of approximately 814 tons/day. The volume of solid waste generated by the proposed project represents 0.06 percent (less than 1%) of the permitted daily capacity of this landfill, and approximately 0.1 percent (less than 1%) of the current surplus capacity of the landfill. Therefore, development of the proposed project is not anticipated to affect the Landers Landfill adversely.

Threshold	Would the proposed project fail to comply with applicable Federal, State, and local statutes and regulations related to solid waste?
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As a part of standard operating procedures, the proponent will coordinate with a certified waste hauler to develop collection of recyclable materials for the project on a common schedule as set forth in applicable Town, County, and State programs. Commercial uses developed within the project site will be required to comply with applicable elements of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991) and other applicable local, State, and Federal solid waste disposal standards. Because of the adherence to established regulations and standards, potential impacts associated with solid waste disposal are considered less than significant, and no mitigation measures are required.

Potentially Significant Impacts. No significant impacts associated with the provision of solid waste services have been identified. In the absence of any significant impact, no mitigation measures are required.

Cumulative Impacts to Solid Waste Services

Cumulative projects are shown in Chapter 2.0, Table 2.A and Figure 2.1. The proposed project will not produce potentially significant impacts to solid waste disposal, and there are no other projects that

¹ Solid waste generation of 0.006 pound per square foot per day of retail uses (0.006 pound/square foot/day × 229,000 square feet = 1,374 pounds); and 17 pounds per employee per day for fast-food restaurant uses (17 pounds/employee × 16 employees = 272 pounds).

would, in combination with the proposed project, result in any significant impact related to solid waste disposal. Therefore, there are no significant cumulative impacts associated with solid waste.

4.16.2 Wastewater Services

Existing Setting for Wastewater Services

The Hi-Desert Water District, which serves the Town of Yucca Valley, does not currently provide a municipal sewage collection and treatment system. The Hi-Desert Water District (District) is developing plans for a phased implementation of sanitary sewer in the Town. The Yucca Valley Retail Specific Plan is located in Phase I of the planned improvements. Currently, the District has obtained grants that are funding engineering, seismic, CEQA, property acquisition, and other pre-construction costs. The District estimates that implementation of the municipal sewer system will be completed over the next 20 years.¹

On-site septic systems currently dispose of wastewater throughout Yucca Valley and its vicinity.² A septic system consists of two parts: the septic tank and the absorption area. Solids in wastewater settle to the bottom of the tank, where naturally occurring bacteria break down the contaminants. Liquids, conversely, rise to the top, leave the septic tank sides, and move on to the absorption area. The absorption area further cleans the water, acting as a filter to remove contaminants. The water eventually trickles down to the aquifer. The solid waste (sludge) that remains at the bottom of the septic tank is pumped regularly (approximately every four years) and properly disposed of by the septic hauler.

Inadequately treated sewage from septic systems can be a cause of groundwater contamination. Another cause is high groundwater levels. In the past, groundwater levels near the Town declined due to pumping. To reverse these declines, in 1995, the Hi-Desert Water District began recharging the groundwater basin using State Water Project water imported from northern California. Subsequently, water levels rose as much as 240 feet in 1999, and nitrate concentrations increased, in some cases, exceeding maximum contaminant levels established by the U.S. Environmental Protection Agency. The high nitrate content water also contained large quantities of dissolved gas, causing cloudy water and air accumulation within pipes.

A study³ conducted in 2001 indicated that these water quality problems resulted from increases in nitrate concentrations, which were due to the confluence of septic seepage and a rising water table. In 2003, the level of nitrates (as NO₃) was 26.2 milligrams per liter (mg/l)⁴ in the Hi-Desert Water District service area. The range was from 8.5 mg/l to 51 mg/l, exceeding the maximum contaminant level allowed of 45 mg/l. The test result of 51 was taken at a well prior to treatment, and the water

¹ High Desert Water District, website accessed 1/23/07 (Operations pull down menu, Wastewater Info).

² Wastewater is water carrying dissolved or suspended solids from homes, farms, businesses, and industries.

³ *Nitrate Contamination and Incorporation of Excess Air Associated with Artificial Recharge in a Desert Basin, Yucca Valley, California*, by Jill N. Densmore and J.K. Böhlke, George R. Aiken and Eve L. Kuniansky, Editors, 2002, U.S. Geological Survey Artificial Recharge Workshop Proceedings, Sacramento, California, April 2-4, 2002: USGS, Open-File Report 02-89 and http://Water.USgs.Gov/Ogw/Pubs/Ofr0289/Jnd_Nitrate.Htm.

⁴ Milligrams per liter is equal to one part per million, which corresponds to one minute in 2 years or a single penny in \$10,000.

that came from that well was not served to the Hi-Desert Water District's customers. Improved readings were reported in 2004 ranging from 1.9 mg/l to 41 mg/l.¹

Concerned with the problem of rising nitrates, the Hi-Desert Water District approved a nitrate removal facility in September 2000. According to the District, a long-term solution, such as a wastewater treatment facility, is needed.² The Board of Directors is predicting that it would take 20 years for the full construction of this facility, with a substantial part of the facility anticipated to be completed in 2 years. The need for a facility is mainly due to the growing number of wells testing high in nitrates and the need to protect the groundwater from further contamination. Numerous tasks have been undertaken (e.g., seismic studies and CEQA clearances) to move this project (the wastewater treatment facility) forward. Seventy acres have been acquired for a wastewater treatment facility on the eastern end of the Town of Yucca Valley off Highway 62 between La Contenta Road and Avalon Avenue. Funding sources for the treatment facilities include Federal funding for 25 percent of the project's construction cost. Grant funds (\$800,000 in fiscal year 1997 and \$500,000 in fiscal year 1998) have been used for engineering, seismic, and CEQA studies; property acquisition; and other pre-construction costs. The CEQA and NEPA environmental studies have begun and are expected to be completed sometime in early 2008. Phase 1, which includes the project site, is currently being evaluated by the HDWD engineer and would ultimately run along Highway 62 providing the backbone for the entire wastewater collection system.

In addition to controlling nitrate contamination resulting from septic systems, a wastewater treatment facility would allow the Hi-Desert Water District to recharge 1,000 acre-feet³ of water per year of treated wastewater into the Warren Valley Basin. This recharge would help offset the cost of maintaining and operating the future wastewater treatment facility.⁴ The wastewater treatment facility will be designed to handle existing and future wastewater flows, which would include the proposed project should it be connected to the treatment system.

Existing Policies and Regulations for Wastewater Services

Federal Water Pollution Control Act. The major piece of Federal legislation dealing with wastewater is the Federal Water Pollution Control Act, which is designed to restore and preserve the integrity of the nation's waters. In addition to the Federal Water Pollution Control Act, other Federal laws and regulations such as the Clean Water Act (CWA) and the National Pollutant Discharge Elimination System (NPDES) have a bearing on the location, type, planning, and funding of wastewater treatment facilities.

State Regional Water Quality Control Board. Operation of wastewater facilities are subject to regulations set forth by the California Department of Health Services (DHS) and State Water

¹ Hi-Desert Water District, *Water Notes, Consumer Confidence Report for 2003*, <http://www.hdwd.com/newsletters%5Ccr2004.pdf>, April 2004; *Water Notes, Consumer Confidence Report for 2004*, <http://www.hdwd.com/newsletters/CCR2005.pdf>, July 2005.

² Hi-Desert Water District, *What's the Big Deal? What's the Connection?* <http://www.hdwd.com/SepticArticle.PDF>, July 5, 2001.

³ An acre-foot is equal to the amount of water required to cover one acre of ground (43,560 square feet) to a depth of one foot (or 7.48 gallons per cubic foot × 43,560 square feet = 325,829 gallons, which covers 1 acre to a depth of one foot).

⁴ Hi-Desert Water District, *Wastewater*, <http://www.hdwd.com/wastewater.htm>, September 7, 2005.

Resources Control Board (SWRCB). NPDES permits are required for operators of municipal separate storm sewer systems (MS4s), construction projects, and industrial facilities that discharge to surface waters within the Town of Yucca Valley. Specifically, wastewater generation from development within the Town is subject to the provisions of the Colorado River NPDES Industrial and Storm Water Permits, administered by the Colorado River Regional Water Quality Control Board (RWQCB). In addition, development is also subject to the provisions of the San Bernardino County Model Water Quality Management Plan Guidance, which describes the overall stormwater management strategies planned by San Bernardino County to protect the beneficial uses of the receiving waters in the County.

The RWQCB also regulates effluent wastewater discharges in Yucca Valley and the surrounding area covering the Warren Valley Groundwater Basin (Basin). The Basin is the primary source of potable water for Yucca Valley and adjacent areas served by the District. Due to the historically high levels of nitrogen found in the underlying Basin caused by use of on-site septic systems, the RWQCB requires on-site treatment including nitrogen removal for development projects with estimated effluent generation of approximately 5,000 gallons per day (gpd) or more. Although 5,000 gpd does not represent a strictly adhered to threshold, this amount does represent the level of effluent generation that the RWQCB considers potentially problematic in the Yucca Valley area due to the history of high nitrogen levels in the groundwater.

Town of Yucca Valley Comprehensive General Plan Policies. The *Town of Yucca Valley Comprehensive General Plan* contains goals and policies related to wastewater. The specific policy of the Water Resource Element that is relevant to the proposed project is Policy 6.

Policy 6 Ensure the Hi-Desert Water District implements and develops a wastewater collection and treatment system which will provide for long-range water quality protection and will provide for increased reclaimed water for groundwater recharge.

Moreover, the Public Buildings, Facilities, and Utilities Element of the General Plan contains a pertinent policy (Policy 4).

Policy 4 Confer and cooperate with the Hi-Desert Water District in determining need and developing long-term plans for the construction of a wastewater treatment plant and sewer collection system to provide long-term protection of the vital groundwater basin.

Wastewater Services Thresholds of Significance

The proposed project is considered to have a significant impact on wastewater services, according to Appendix G of the *CEQA Guidelines*, if it resulted in any of the following:

- A determination by the wastewater treatment provider that serves or may serve the proposed project that existing or planned facilities do not have the adequate capacity to serve the proposed project's service demand;
- Require the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects; or

- Exceed wastewater treatment requirements of the Colorado River Basin Regional Water Quality Control Board.

Wastewater Services Impacts and Mitigation Measures

Less Than Significant Impacts. The following wastewater services impacts were determined to be less than significant. It was established that either no impact or a less than significant impact would occur (and, therefore, no mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential wastewater impacts to a less than significant level.

Threshold	Would the proposed project result in existing or planned facilities not having adequate capacity to serve the proposed project's service demand?
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Generally, water use and wastewater flows are related in that wastewater is generated from indoor water uses. According to the Nasland Engineering document of April 2007, included in (Appendix P), the Wal-Mart facility will generate 6,120 gdp, and the Gas and Food parcel will require 3,500 gdp, an anticipated combined average flow of approximately 9,620 gdp. These wastewater numbers are based on information provided by Wal-Mart and Nasland Engineering.

As identified in the project description and based on discussions between the Town, District, and RWQCB, the project will include on-site secondary effluent treatment with nitrogen removal. The on-site treatment system will consist of a package system or underground treatment system which involves several chambers and pumps. Normally, the package systems can be installed into underground vaults, which allow for other uses such as parking lots and roadways to be overlain above the treatment system. Other site treatment systems are designed to not be completely installed underground. This results in the tops of the units being located slightly above ground level. For this particular system, foot traffic would be permissible as it would not damage the portion of the system that is above ground. The third type of system is designed to be completely out of traffic areas. The installation of "out of traffic" systems is permitted underground for aesthetic purposes. The system will treat the anticipated 9,620 gallons per day of wastewater generated by the project.¹ The treatment effluent will then be pumped to five seepage pits (with each seepage pits having a capacity of 5,000 gallons per day), located underneath the northeast corner of the project parking lot. The total capacity of the wastewater treatment system is anticipated to be 10,000 gallons, which is more than the anticipated project flow. The seepage pits will then allow for the discharge of the treated effluent.

The discharge of effluent is regulated by the RWQCB pursuant to authority granted by the Porter-Cologne Water Quality Control Act. Through issuance of wastewater flow permits, the Colorado River Basin RWQCB prescribes waste discharge requirements (WRDs) for all wastewater treatment systems. WDRs will include specific effluent limitations. While discharge requirements are prescribed for each discharger on a case-by-case basis, in every case, WDRs will be established that are consistent with Colorado River Basin RWQCB Water Quality Objectives. The Water Quality Objectives are designed to be in accordance with all pertinent State and Federal requirements.

¹ Pete Ritchey, Nasland Engineering Project Manager, (858) 292-7770, telephone conversation July 2, 2007.

Compliance with Colorado River Basin RWQCB Water Quality Objectives will ensure the treatment plant's discharge complies with applicable water quality standards and waste discharge requirements.

Wastewater flows from the proposed project site would eventually be conveyed to and processed by the Town's Wastewater Treatment Facility. Based on the Wastewater Management Plan¹, the wastewater treatment facility will have a design capacity of 1 million gallons per day (mgd) for Phase 1, a design capacity of 2 mgd for Phase 2 with each subsequent phase providing a 1 mgd increment in capacity. Since the treatment facility is not yet constructed, data does not currently exist on surplus capacity for average and peak flow days. However, because the project site is included in the Phase 1 area of the treatment facility plant, it can be inferred that the future treatment facility would be able to accommodate the project site's wastewater flows. The wastewater flows from the proposed on-site uses are equivalent to approximately 4.3 percent of the proposed treatment facility's average daily capacity. Because adequate capacity would be present at the future wastewater treatment facility, impacts associated with wastewater facilities are less than significant.

Because the project will be required to provide on-site secondary effluent treatment with nitrogen removal in order to comply with the waste discharge prohibitions and water quality objectives established by the District, County of San Bernardino Environmental Health Department, and the RWQCB, impacts related to this issue will be reduced to a less than significant level. No mitigation measures are required.

Threshold	Would the proposed project require the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?
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As previously discussed, there is no wastewater facility that serves the Town of Yucca Valley. The community currently relies on septic systems to dispose of wastewater. Due to the history of groundwater contamination from septic systems in the form of nitrogen, the agencies involved in the protection of the local groundwater (District, County, and RWQCB) require on-site of treatment of project effluent for projects with generation of 5,000 gpd or greater. As indicated in the project description, the project will include an on-site secondary effluent treatment system with nitrogen removal. The on-site treatment system will be designed in accordance with requirements of the District, County of San Bernardino Environmental Health Department, and the RWQCB.

The proposed project includes the construction of an on-site secondary treatment system with nitrogen removal. The on-site treatment system, a package system, or underground treatment system will be designed to handle wastewater flows from the proposed project and will comply with applicable design requirements of the District, County of San Bernardino Environmental Health Department, and the RWQCB. Thus, the proposed project would be self-supporting with respect to wastewater services as it would not require the construction of new wastewater treatment facilities or the expansion of existing facilities, resulting in a less than significant impact on wastewater services.

Although no mitigation measures are required, as the proposed project will have a less than significant impact on wastewater services, the proponent will install dry sewer lines and record

¹ *Hi-Desert Water District Wastewater Master Plan*, Hi-Desert Water District, January 1998.

acceptance of connection when available against the parcel so as not to rule out the possibility of connecting seamlessly to the Town of Yucca Valley wastewater treatment facility in the future. The installation of dry sewer lines would occur during the construction phase of the proposed project, precluding having to retrofit sewer lines after construction is complete. In addition, the package systems, after connecting to the City's anticipated treatment facility, will easily be removed without disrupting the existing parking areas and traffic flow, providing a smooth transition to a permanent condition.

Threshold	Would the proposed project exceed wastewater treatment requirements of the Colorado River Basin RWQCB?
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The NPDES permit system requires all existing and future municipal and industrial discharges to surface waters within the Town to be subject to requirements specified in the Colorado River Basin Plan (RWQCB Region 7) and in project permits. In addition, operational discharge flows would be treated and would be required to comply with their associated waste discharge requirements.

Compliance with the NPDES, along with permit requirements established by the Town and the Hi-Desert Water District, will ensure that discharges into the sewer or stormwater system resulting from the operation of the proposed project do not exceed applicable Colorado River Basin RWQCB wastewater treatment requirements. No significant impact related to the exceedance of wastewater treatment requirements of the Colorado River Basin RWQCB would occur.

Potentially Significant Impacts. No significant impacts to wastewater conveyance, or treatment systems, or related to established wastewater treatment requirements have been identified. In the absence of any significant impacts, no mitigation measures are required.

Cumulative Impacts to Wastewater Services

Cumulative projects are shown in Chapter 2.0, Table 2.A and Figure 2.1. The proposed project will not produce potentially significant impacts to wastewater treatment. Because the proposed project will fully mitigate potential wastewater impacts by including on-site secondary effluent treatment with nitrogen removal, there is no potential cumulative wastewater impact created by project because none of the wastewater would be discharged. Consequently, there are no projects that would, in combination with the proposed project, result in any significant impact related to wastewater treatment; therefore, there are no significant cumulative impacts associated with wastewater.

4.16.3 Water Supply

Existing Setting for Water Supply

The Hi-Desert Water District provides water service to the Town of Yucca Valley and a portion of the unincorporated area within the County of San Bernardino. The District has approximately 9,700 service connections¹ and serves a population of 25,000 people (see Table 4.8.B in Section 4.8,

¹ Connection – The pipe line and appurtenant facilities such as the curb stop, meter and meter box, all used to extend

Hydrology and Water Quality). With a total service area of over 50 square miles, the District operates 16 storage tanks, 17 wells, and maintains nearly 300 miles of transmission and distribution pipelines.¹

The Hi-Desert Water District pumps approximately 3,000 acre-feet per year of groundwater to supply its customers. The main groundwater source is from the Warren Valley Groundwater Basin, which underlies the Town of Yucca Valley area. The Hi-Desert Water District also has pumping rights to an adjacent groundwater basin, the Ames Valley Basin, for 800 acre-feet of water per year. In January 1995, the District started importing State Water Project water via the Morongo Basin Pipeline. The 71-mile pipeline runs from the State Project canal located in Hesperia to the Town of Yucca Valley. Water received via the pipeline is recharged into the Warren Valley Basin through two percolation ponds. Currently, the District's allotment of State Water Project water is 4,270 acre-feet per year through the Morongo Basin Pipeline.²

Water Supply Policies and Regulations

Federal Regulations. The following discussion includes the Clean Water Act (CWA) and the Federal Water Pollution Control Act.

Clean Water Act (CWA). The CWA is the principal Federal law that addresses water quality. The primary objectives of the CWA are to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters,” and to make all surface waters “fishable” and “swimmable.” The implementation plan for these objectives includes the regulation of pollutant discharges to surface water, financial assistance for public wastewater treatment systems, technology development, and non-point source pollution prevention programs. The CWA also requires that states adopt water quality standards to protect public health or welfare and enhance the quality of water. The use and value of state waters for public water supplies, propagation of fish and wildlife, recreation, agriculture, industrial purposes, and navigation must also be considered by the states.

Federal Water Pollution Control Act. The Federal Water Pollution Control Act requires discharges (from point and non-point sources) into navigable water to meet stringent NPDES permit standards. The EPA has published regulations establishing requirements for application of stormwater permits for specified categories of industries, municipalities, and certain construction activities. The regulations require that discharges of stormwater from construction activity of 5.0 acres or more must be regulated and covered by an NPDES permit. When a construction area exceeds 5.0 acres in size, the applicant must develop and implement an SWPPP to control non-point pollution.

water service from the main to premises, the laying thereof and the tapping of the main. Where services are divided at the curb or property line to serve several customers, each such branch service shall be deemed a separate service (Ordinance No. 71: An Ordinance of the Hi-Desert Water District Establishing Rules and Regulations for Providing Water Service, <http://www.hdwd.com/ordinances%5Cord71.pdf>, August 18, 1999).

¹ Hi-Desert Water District, *History*, <http://www.hdwd.com/history.htm>, September 7, 2005.

² Hi-Desert Water District, *Recharge Water*, <http://www.hdwd.com/supple.htm>, September 7, 2005.

National Safe Drinking Water Act (SDWA). Passed in 1974, the U.S. Environmental Protection Agency (EPA) regulates contaminants of concern to domestic water supply. Contaminants of concern relevant to domestic water supply are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. EPA regulates these types of contaminant through the development of national primary and secondary maximum contaminant levels (MCLs) for water. MCLs and the process for setting these standards were to be reviewed triennially. Amendments to the SDWA in 1986 and 1996 revised the schedule for EPA to develop certain drinking water MCLs and extended the review period to a 6-year cycle.

State Regulations. Within California, the U.S. Army Corps of Engineers (Corps), the California Department of Fish and Game (CDFG), and the RWQCB regulate activities within inland streams, wetlands, and riparian areas. Any development proposal that involves impacts to drainage courses, streams, or wetlands on the site through filling, stockpiling, conversion to a storm drain, channelization, bank stabilization, road or utility crossing, or any other modifications would require permits from Corps, CDFG, and/or the RWQCB.

California State Laws. The California Water Code is the principal State law regulating water quality in California. The Health and Safety Code, Fish and Game Code, Harbors and Navigation Code, and the Food and Agriculture Code all contain water quality provisions that require compliance.

The California Water Code contains provisions regulating water and its use. This portion of the California Water Code, Division 7 (Porter-Cologne Act), establishes a program to protect water quality and beneficial uses of the State water resources and includes groundwater and surface water. The State Water Resources Control Board and the RWQCBs are the principal State agencies responsible for control of water quality. They establish waste discharge requirements, water quality control planning and monitoring, enforcement of discharge permits, and ground and surface water quality objectives. They also prevent waste and unreasonable use of water, and adjudicate water rights.

The Health and Safety Code, Fish and Game Code, Harbors and Navigation Code, and the Food and Agriculture Code all contain provisions concerning water quality. The Health and Safety Code provides for protection of ground and surface waters from hazardous waste and other toxic substances. The Harbors and Navigation Code provides regulations designed to prevent the unauthorized discharge of waste from vessels into surface waters. The Fish and Game Code has provisions to prevent unauthorized diversions of any surface water and discharge of any substance that may be deleterious to fish, plant, animal, or bird life. The Food and Agriculture Code provides for the protection of groundwater that may be used for drinking water supplies.

The California Code of Regulations (CCR) also contains administrative procedures for the State and RWQCBs in Title 23 and for water quality for domestic uses, wastewater reclamation, and hazardous waste management in Title 22.

The CDFG, through provisions of the California Fish and Game Code (Sections 1601 through 1603), is empowered to issue agreements for any alteration of a river, stream, or lake where fish

or wildlife resources may be adversely affected. The presence of a channel bed and banks, and at least an intermittent flow of water define streams (and rivers). CDFG regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFG.

Surface water quality is the responsibility of the RWQCB, water supply and wastewater treatment agencies, and city and county governments. The principal means of enforcement by the RWQCB is through the development, adoption, and issuance of water discharge permits. The basin plan established by the Colorado River Basin RWQCB, for example, establishes water quality objectives that are defined as the limits or levels of water quality constituents or characteristics for the reasonable protection of beneficial uses of water.

Water Conservation in Landscaping Act of 1990. To ensure adequate supplies are available for future uses, and to promote the conservation and efficient use of water, local agencies were required to adopt a water efficient landscape ordinance. When such an ordinance had not been adopted, a finding as to why (based on the climatic, geologic, or topographical conditions) such an ordinance is not necessary, must be adopted. In the absence of such an ordinance or findings, the policies and requirements contained in the “model” ordinance drafted by the State of California shall apply within the affected jurisdiction.

Water Recycling in Landscaping Act. This Act requires that a water producer capable of providing recycled water that meets all of the conditions as described in Section 13550 of the State Water Code shall notify local agencies of the area(s) eligible to receive the recycled water and the necessary infrastructure that the recycled water producer or retail water supplier will provide to support the delivery of recycled water. Within 180 days of receipt of such a notification from a recycled water producer, a local agency shall adopt and enforce a recycled water ordinance pursuant to this act.

Sections 13550-13556 of the State Water Code. These sections of the State Water Code state that local, regional, or State agencies shall not use water from any source of quality for nonpotable uses if suitable recycled water is available as provided in Section 13550 of the Water Code.

Urban Water Management Planning Act. Since 1984, the Urban Water Management Planning Act, has required “urban water suppliers” to develop written “Urban Water Management Plans.” While generally aimed at encouraging water suppliers to implement water conservation measures, it also created long-term planning obligations. In preparing urban water management plans, urban water suppliers must describe the following:

- Existing and planned water supply and demand;
- Water conservation measures and a schedule for implementing and evaluating such measures; and
- Water shortage contingency measures.

The Urban Water Management Planning Act requires urban water suppliers to use a 20-year planning horizon and to update the data in the urban water plans every five years. Urban Water Management Plans are exempt from CEQA and, thus, do not generate any EIRs of use for future land use or water planning.

In preparing their 20-year management plans, water suppliers must directly address the subject of future population growth. The suppliers must also identify sources of supply to meet demand. The plan must “identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier.” In identifying these future water sources the suppliers need not conduct environmental review.

Senate Bill 221 – Conditions of Approval and Water Availability. Signed into law on October 8, 2001, Senate Bill 221 established a process whereby sufficient water supply must be identified and available for new development for any residential development of 500 homes or more, or in the case wherein a water supplier has fewer than 5,000 service connections, or the proposed development would increase the number of connections by at least 10 percent, unless there is proof of adequate water over at least the next 20 years, including long periods of drought.

Senate Bill 901 – Water Supply and Demand Reliability Assessment. Signed into law on October 16, 1995, Senate Bill 901 required every urban water supplier to identify as part of its Urban Water Management Plan the existing and planned sources of water available to the supplier over a prescribed 5-year period. Senate Bill 901 required additional information to be included as part of an Urban Water Management Plan if groundwater is identified as a source of water available to the supplier. Provisions of Senate Bill 901 require an urban water supplier to include in the plan a description of all water supply projects and programs that may be undertaken to meet total project water use. A city or county, at the time it submits the Notice of Preparation (NOP) for an Environmental Impact Report (EIR) for a project, shall request each public water system serving a project to assess the projected water demand associated with said project and an assessment of whether the projected water demand associated with selected projects was included as part of the most recent Urban Water Management Plan. As part of this assessment, the public water system is required to indicate whether its total projected water supplies available during normal, single-dry, and multiple-dry water years will meet the project demand associated with the proposed project, in addition to the public water system’s existing and planned uses. Compliance with the provisions of Senate Bill 901 was required if a project required the adoption of a specific plan; or the amendment to, or revision of the land use element of a general plan or specific plan that would result in a net increase in the stated population density of building intensity. Pursuant to Section 10913 of the State Water Code, a “project” was specifically defined as development meeting any of the following criteria:

- 500 or more dwelling units;
- Commercial center employing more than 1,000 persons or having more than 500,000 square feet;
- Office building employing more than 1,000 persons or having more than 250,000 square feet;

- A hotel/motel with 500 or more rooms;
- An industrial, manufacturing, processing plant, or industrial park employing more than 1,000 persons or occupying more than 40 acres, or having more than 650,000 square feet of floor area;
- A mixed-use project that would demand an amount of water equivalent to the amount of water required by a 500 dwelling unit project; or
- In areas where the public water system has fewer than 5,000 service connections, any development that would increase water demand by 10 percent or greater in the number of existing service connections, or in the case of a mixed-use development, an increase in water required by residential development representing a 10 percent or greater in the number of existing service connections.

After receiving such information, cities and counties may agree or disagree with the conclusions of the water purveyors but cannot approve projects in the face of documented water shortfalls without first making certain findings.

Senate Bill 610 – Water Supply Planning. Signed into law October 9, 2001, Senate Bill 610 resulted in amendments to Section 21151.9 of the Public Resources Code. Additionally, Sections 10631, 10656, 10910, 10911, 10912, and 10915 of the Water Code were amended. Section 10913 of the Water Code was repealed, while portions of Section 10657 were added and/or repealed. Revising provisions established by Senate Bill 901, SB 610 requires that any city or county having determined that a project is subject to CEQA to identify any public water system that may supply water for the project and to request those public water systems to prepare a specified water supply assessment. Such an assessment would include, among other information, the identification of existing water entitlements, water rights, or water service contracts relevant to the water supply identified for a proposed project, and the amount of water received pursuant to such entitlements, rights, or contracts. Senate Bill 610 requires the public water system, city, or county to submit plans for acquiring the required water supply for a proposed project if the water supply assessment concludes that water supplies are or will become insufficient. Any such water supply assessment and other information would be included in the environmental document prepared for the project pursuant to CEQA. Pursuant to Section 10912 of the State Water Code as amended (Section 10913 was repealed and added to Section 10912), changes to the definition of a “project” were not made, except for the changes pertaining to the definition of a mixed-used project.

Local Policies. The Water Resources Element of the *Town of Yucca Valley Comprehensive General Plan* contains goals and policies related to water supply. The specific policies of the Water Resources Element that is relevant to the proposed project are as follows:

- Policy 1** Require the use of low water consuming, drought-resistant landscape planting as a means of reducing water demand, and shall coordinate with the Hi-Desert Water District to establish a strong education/public relations program to inform residents of a wide range of water saving techniques.

Policy 4 Regulate land use and development, and confer and cooperate with the Hi-Desert Water District and County Transportation/Flood Control to facilitate recharging the Warren Valley Groundwater Basin.

The Public Buildings, Facilities, and Utilities Element of the *Town of Yucca Valley Comprehensive General Plan* contains goals and policies related to water supply in the Public Utilities goal, policies, and programs section. Policy 3 of this element is relevant to the proposed project:

Policy 3 Confer and cooperate with the Hi-Desert Water District to assure an adequate water system for existing and future development and maintain an adequate reserve of water in storage facilities.

Ordinance 45¹ of the Town of Yucca Valley provides policies with respect to landscaping and water conservation requirements. Several are pertinent to the proposed project:

- The Town encourages quality landscaping in conjunction with new development projects and with the remodeling and upgrading of existing commercial and residential projects. Project proponents are expected and shall be required to provide for acceptable landscaping that adds to the quality and aesthetics of project developments.
- All landscaping materials shall be drought-resistant and compatible with the Mountain/Desert environments present in Yucca Valley.
- The Town encourages the use of the highest and most efficient irrigation systems available, which will provide the best means of efficiency and, therefore, water conservation measures.
- Ordinance policies are designed to ensure that future landscaping projects are designed and constructed to the highest level of aesthetic values and water efficiency, and to make wise water management viable and easy.
- Plants shall be selected based upon appropriateness and their adaptability to climatic, geologic, and topographical conditions of the site. Protection and preservation of native species and natural areas is encouraged.
- Selection of water-efficient and low-maintenance plant material is recommended.
- All planted areas must be a minimum of one inch below adjacent hardscape to reduce runoff and overflow.
- In general, large turf areas are discouraged. Large turf areas shall be found only in areas of maximum human contact. These areas include recreational areas such as that found in Town parks and school yards. Large non-functional turf areas shall be minimized and reviewed to see if the same effect can be obtained with other plant material. Designers should consider that lawns reduce tree growth because of competition for fertilizer and water. Trees in lawns need deep irrigation, increasing and complicating irrigation systems. Lawns around trees become a maintenance problem, increasing maintenance costs.
- Street median and parking landscaping consisting of turf grass shall not be allowed.

¹ Ordinance No. 45: *An Ordinance of the Town Council of the Town of Yucca Valley, California, Adding Title 9 Entitled "Development Code" and Adding a New Chapter 9.75 Relating to Landscaping/Water Conservation Requirements*, January 21, 1994.

- Avoid designing long, narrow or irregularly shaped turf areas, because of the difficulty in irrigating uniformly without overspray onto hardscape and/or structures.
- Plants requiring more frequent irrigation shall be confined to high-visibility areas (e.g., entries, patios, and low-lying areas that are designed to catch and retain normal storm runoff). Plants that require less frequent irrigation should be located in less visible areas or around property perimeters.
- Areas of minimum visual aesthetics shall have planting designed to provide erosion and/or shade protection.
- The use of soil-covering mulch, such as decomposed granite, to reduce soil surface evaporation is encouraged around trees, shrubs, and on non-irrigated areas. The use of boulders and creek stones should be considered to reduce the total vegetation area. Make sure the area has enough shade to avoid reflected or retained heat. Planting of trees is encouraged wherever it is consistent with other provisions of this ordinance.
- Water waste from inefficient landscape irrigation allowing runoff, low-head drainage, overspray, or other conditions where water flows onto roadway, adjacent property or non-irrigated property is prohibited.
- Landscape and irrigation systems shall be maintained to ensure water efficiency. A regular maintenance schedule shall include, but not be limited to, checking, adjusting, repairing irrigation equipment, resetting the time clocks monthly, aerating and de-thatching turf areas, replenishing mulch, fertilizing, pruning, and weeding all planted areas.

Water Supply Threshold of Significance

The proposed project would result in a significant impact on water supply or service if it requires new, or the expansion of existing, water supply entitlements and resources, the construction of which would cause significant environmental effects.

Water Supply Impacts and Mitigation Measures

No Impacts or Less than Significant Impacts. Water supply impacts were determined to be less than significant, as adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

Threshold	Would the proposed project require new, or the expansion of existing, water supply entitlements and resources the construction of which would cause significant environmental effects?
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The Hi-Desert Water District main groundwater source is from the Warren Valley Groundwater Basin, which underlies the Town of Yucca Valley area. The Hi-Desert Water District also has pumping rights to an adjacent groundwater basin, the Ames Valley Basin, for 800 acre-feet of water per year. In addition to local groundwater supplies, in January 1995, the District started importing State Water Project water via the Morongo Basin Pipeline Project (Morongo Project). The 71-mile pipeline runs from the State Project canal located in City of Hesperia to the Town of Yucca Valley.

Currently, HDWD’s allotment of State Water Project water coming from the Morongo Project is 4,270 acre-feet per year. HDWD makes an annual and ongoing payment to the Mojave Water Agency (MWA) for usage of the Morongo pipeline that Mojave uses to deliver SWP water to HDWD. The capacity of the Morongo Project is 4,270 acre-feet (ac-ft) of water per year.¹ To serve existing customers, HDWD purchases 3,000 ac-ft through this water source which is approximately 70.3 percent of the available capacity. The remaining 29.7 percent (approximately 1,268 ac-ft) of this source is reserve capacity to serve growth in addition to local groundwater supplies.² Water received via the pipeline is recharged into the Warren Valley Basin through two percolation ponds.³ A summary of HDWD water sources is included as part of Table 4.16 A. Further analysis of groundwater levels is discussed in Section 4.8 under groundwater impacts.

Table 4.16.A – Hi-Desert Water District Water Sources

Water Source	Amount of Water Entitled (acre-feet per year)
Groundwater	
Warren Valley Basin Adjudication	1,622 AFY
Ames Valley Basin	800 AFY
Imported Water (State Water Project)	
Morongos Pipeline	4,270 AFY
Total Water	6,692 AFY

Source: Hi-Desert Water District

Although the SWP supplies that recharge the Warren Valley Basin have high annual variability, the groundwater basins used within the service area are sufficiently large to allow for continued water use during dry periods with only a temporary decline in groundwater levels. In addition, MWA has a SWP water contract for up to 75,800 acre-feet per year of which 7,257 acre-feet is allocated for the Morongo Basin/Johnson Valley Area. According to the Final State Water Project Reliability Report, MWA should expect to receive an average of about 58,400 acre-feet per year each year if they request their full entitlement under year 2020 conditions, thereby preserving the existing allotment of SWP to the Morongo Basin/Johnson Valley Area.

Based on a water consumption factor of 2,000 gallons per acre per day for commercial land uses, water demand for the proposed on-site uses would be approximately 51,020 gallons per day (0.156 acre-feet/day) or approximately 56.94 acre-feet/year.⁴ As indicated in Table 4.16.B, the Hi-Desert Water District had 283.2 acre-feet of excess capacity in the 2004/2005 water year. The proposed project would require approximately 20.1 percent of the total excess water that is available.

¹ Hi-Desert Water District, *Recharge Water*, <http://www.hdwd.com/supple.htm>, September 7, 2005.

² *Hi Desert Water District Development/Capacity Fees Analysis*, December 2004.

³ *2004 Regional Water Management Plan*, Mojave Water Agency, prepared by Schlumberger Water Services, February 24, 2005.

⁴ Water consumption: 2,000 gallons/acre/day × 25.51 acres = 51,020 gallons/day.

Table 4.16.B – Hi-Desert Water District Yearly Summary Report (acre-feet)

Year	State Water Project Water Recharged	Treated	Water Produced		Total	Water Billed	Excess	Excess
			Warren Basin	Other*				
1992/93	0	n/a	2,316.4	593.2	2,909.6	2,447.5	462.1	16%
1993/94	0	n/a	1,982.4	980.9	2,963.3	2,635.8	327.5	11%
1994/95	1,340	n/a	1,713.3	1,081.5	2,794.8	2,499.9	294.9	11%
1995/96	3,586	n/a	1,439.6	1,457.3	2,896.9	2,645.8	251.1	9%
1996/97	4,776	n/a	1,954.8	827.3	2,782.1	2,449.3	332.8	12%
1997/98	3,962	n/a	1,786.4	747.8	2,534.2	2,300.8	233.4	9%
1998/99	2,211	n/a	1,839.6	839.9	2,679.5	2,416.0	263.5	10%
1999/00	3,633	n/a	2,197.6	578.1	2,775.7	2,636.7	139.0	5%
2000/01	3,891	n/a	2,167.6	655.7	2,823.3	2,614.0	209.3	7%
2001/02	2,359	n/a	2,034.1	969.0	3,003.1	2,751.0	252.1	8%
2002/03	2,987	1,165.30	2,721.1	453.8	3,174.9	2,792.2	382.7	12%
2003/04	2,851	798.2	2,371.5	751.1	3,122.6	2,760.2	362.4	12%
2004/05	3,996	409.5	2,340.6	780.5	3,121.1	2,837.9	283.2	9%

Sources: Hi-Desert Water District, http://www.hdwd.com/Water_stats_Prevyrs.pdf and http://www.hdwd.com/Water_stats_Curyr.pdf, September 7, 2005.

Note: **"Other" includes Means Basin and Intertie. The focus of this study is Warren Basin, which was differentiated in this table.

A water supply assessment is required for any commercial center employing more than 1,000 persons or having more than 500,000 square feet, or any mixed use with a water demand equivalent to 500 residential units as required by the California Water Code (§§ 10910-10912). The water demand required for the proposed project is substantially less than these thresholds. The proposed project entails the development of an approximately 229,000-square foot supercenter, a 6-pump gas station, and an approximately 4,000-square foot fast-food restaurant. It will employ approximately 589 persons. Furthermore, the water demand resulting from the operation of the proposed on-site uses is less than that utilized by 500 residential dwellings, which is approximately 0.456 acre-feet per day (148,790 gallons) or 163.52 acre-feet per year (53,308,350 gallons).¹ With the proposed project, the potential water use would be approximately 56.94 acre-feet per year (504,000 gallons), which is less than the residential threshold.

According to the *Yucca Valley Retail Specific Plan*, water service to the proposed project area will be provided with a connection to the 12-inch existing public water line in Avalon Road and the extension of a public water line along the alignment of the future Palisade Drive and northerly onto the project site. No major construction activities would be required to provide these extensions, which will be dedicated to the Hi-Desert Water District. There will be private waterlines within the site to provide service to the proposed project.

Landscaping for the proposed project will comply with all Town of Yucca Valley standards to minimize the need for irrigation. The project will utilize xeriscape landscaping, which will employ

¹ Based on per capita single-family residential usage of 0.33 acre-feet/year (108,617 gallons/year), divided by 365 days/year = 298 gallons/single-family residence/day. Taking the 298 gallons/single-family residence/day and multiplying by 500 residences equals 148,790 gallons/day of water required. The annual use would be 54,308,350 gallons.

drought-resistant plants to help reduce the amount of water used for landscaping. In addition, during construction and operations phases, Ordinance 140, relating to plant protection and management will be followed (see Section 4.4, Biological Resources, for more discussion on Ordinance 140).¹ During the high use season (June 1 to September 30), irrigating and watering is permitted before the hours of 9:00 a.m. and after the hours of 5:00 p.m., any three days of the week, as long as the three days are not exceeded in any given week. During the low use season (October 1 to May 31), watering is permitted at the discretion of the customer, taking into account weather conditions such as wind and temperature; however, only three days of the week are permitted.²

Mitigation Measures. Conformance with established regulations, standards, and policies would reduce water supply potential impacts to a less than significant level; therefore, no mitigation measures are required. There would be no significant environmental effects associated with the construction of water supply facilities or the expansion of existing water supply entitlement and resources. Because water supplies are sufficient to meet demand, potential impacts related to water supply are less than significant, and no mitigation is required.

Cumulative Impacts to Water Supply

Cumulative projects are shown in Chapter 2.0, Table 2.A and Figure 2.1. The proposed project will not produce potentially significant impacts to water supply. Although the proposed project together with all future development will incrementally increase the demand for water within the region, the impact of this increase in water demand has been addressed by the HDWD's Urban Water Management Plan (UWMP) and the MWA's Regional Water Management Plan. These documents include provisions for groundwater recharge in the surrounding area particularly in the Warren Valley Basin area. There are no projects that would, in combination with the proposed project, result in any significant impact related to water supply; therefore, there are no significant cumulative impacts associated with water supply.

4.16.4 Stormwater Drainage

Existing Setting for Stormwater Drainage

Drainage on the project site is by percolation; however, sheet flow may occur during heavy rainfall events. The general drainage in the project vicinity is toward the north and northeast. In the *Yucca Valley Master Plan of Drainage*,³ flood control facilities were developed and sized for both non-detained and detained conditions. For the detained conditions, detention basin sites were identified, basin concepts were developed, and flood routing studies were performed to determine flood peak reduction benefits. The Master Plan includes the location and detailed plans showing proposed detention basin facilities, facility sizing, type of conveyance, and peak discharges. In addition, the Master Plan includes a review of the magnitude of 100-year storms, the characteristics of the major

¹ Ordinance No. 140: *An Ordinance of the Town Council of the Town of Yucca Valley, California, Amending Title 8, Division 9 of the County of San Bernardino Code as Adopted by the Town of Yucca Valley Relating to Plant Protection and Management.* (DCA-06-01), http://www.yucca-valley.org/pdf/ordinances/nativeplant_ord140.pdf, June 2001.

² Hi-Desert Water District, *Water Hours*, <http://www.hdwd.com/whours.htm>, September 7, 2005.

³ County of San Bernardino Flood Control District, *Yucca Valley Master Plan of Drainage Final Report*, prepared for the San Bernardino County Flood Control District by John M. Tettermer and Associates, Inc. June 1999.

drainage, and how both establish the need and determine the most cost-effective methods of flood control. For more information on flood control, see Section 4.8, Hydrology and Water Quality.

According to the *Town of Yucca Valley Comprehensive General Plan* (page V-15), the natural and planned backbone of the drainage system for the Town of Yucca Valley is Yucca Creek Wash, extending from and including the Water Canyon drainage. The Town's center of development has occurred along SR-62, the focus of area-wide drainage. Yucca Creek receives runoff from all the major drainage passing through the Town. The project site is located within a 62-acre watershed,¹ which is bounded by Avalon Avenue on the west. A relatively high point located approximately 2,700 feet to the south defines the watershed's southern boundary. Stormwater runoff fans across the watershed from the south to the northeast toward SR-62.

Existing Policies and Regulations for Stormwater Drainage

Town of Yucca Valley Comprehensive General Plan Policies. The Slopes, Sediment Control and Soil Conservation Element contains goals and policies related to stormwater drainage. The specific policy of this element that is relevant to the proposed project is as follows:

Policy 5 In order to control soil disturbance and erosion, grading associated with all development plans shall be kept to the minimum necessary to provide for planned improvements, while maintaining maximum natural and undisturbed vegetation.

Federal Regulations. With respect to discharges of stormwater and construction project discharges, pursuant to Section 402 of the Clean Water Act (CWA), the Regional Water Quality Control Board (RWQCB), Colorado River Basin Region issues NPDES permits to regulate waste discharges to "waters of the nation," which include rivers, lakes, and their tributary waters. A construction project resulting in the disturbance of more than one acre requires an NPDES permit. Construction project proponents are also required to prepare a Storm Water Pollution Prevention Plan (SWPPP).

Thresholds of Significance

The proposed project would result in a significant impact on stormwater drainage if it requires new stormwater drainage facilities or the expansion of existing stormwater drainage facilities, the construction of which would cause significant environmental effects.

Impacts and Mitigation Measures

No Impact or Less than Significant Impact. Stormwater drainage impacts were determined to be less than significant, as adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

¹ *Drainage Analysis of Proposed Wal-Mart Store No 1915-03*, prepared by Development Resource Consultants, Inc., February 9, 2005.

Threshold	Would the proposed project require new stormwater drainage facilities or the expansion of existing stormwater drainage facilities, the construction of which would cause significant environmental effects?
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The main purpose of the proposed drainage system for the project site would be to provide adequate flood protection to the site, as well as adjacent or downstream properties. The design criteria for the project site was established through correspondence with the engineering department of the Town of Yucca Valley. It was concluded that the County of San Bernardino standards and procedures regarding the design of stormwater conveyance systems were to be implemented. In addition, the detention basin's design volume is 3.6 acre-feet, which exceeds the required storage volume of 1.4 acre-feet. With these improvements in place, the proposed project will be adequately protected from storm runoff and will not adversely affect neighboring or downstream properties. Because future capacity of the detention basin can sufficiently accommodate the stormwater flow demands of the proposed project, no significant impact would occur.

Additionally, prior to project approval, the proposed project would include conditions of approval to construct all off-site and on-site stormwater facilities needed to distribute water throughout the development area. As any environmental effect resulting from the installation of required water infrastructure would be offset through conditions imposed on the project by the Town and HDWD and through the payment of required fees, impacts related to this issue are less than significant

Mitigation Measures. The proposed project will not result in the requirement of new or expanded stormwater drainage facilities outside the project site. No mitigation measures are required for stormwater drainage facilities.

Potentially Significant Impacts. There are no potentially significant impacts related to this issue.

Cumulative Impacts of Stormwater Drainage

Cumulative projects are shown in Chapter 2.0, Table 2.A and Figure 2.1. The proposed project will not produce potentially significant impacts to stormwater drainage, and there are no projects that would, in combination with the proposed project, result in any significant impact related to stormwater drainage. Therefore, there are no significant cumulative impacts associated with stormwater drainage.

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