3.14.3 Water Supply

ENVIRONMENTAL SETTING

Los Angeles County Water Works District 29, Malibu

Malibu is supplied water from Water Works District (WWD) No. 29, which is a purveyor for the Metropolitan Water District (MWD) of Southern California. WWD No. 29 is responsible for providing water to its customers while meeting all applicable federal and state water quality standards. WWD No. 29's major system facilities include approximately 200 miles of water main (approximately 5 percent or 53,600 linear feet are above ground), 32 pump stations, and 52 tanks with a storage capacity of approximately 20 million gallons. Currently, WWD No. 29 has storage capacity for approximately three days; however, several projects have been constructed to improve water service reliability.[1] The service area of WWD No. 29 includes Marina del Rey, the City of Malibu, and unincorporated territory within Topanga Canyon.

In accordance with the California Urban Water Management Act, as amended, WWD No. 29 prepared an Urban Water Management Plan. Malibu and the Marina del Rey Water System Urban Water Management Plan (UWMP) was approved in June 2011. The purpose of the UWMP is to assist water agencies to plan for future water supply and demand within their service areas. The UWMP notes that the commercial sector of the service area, which includes the project site, is expected to have minimal growth over the next 20 years due to the built-out nature of the area.[2]

Metropolitan Water District of Southern California

WWD No. 29 purchases water from the West Basin Municipal Water District, which purchases water from the MWD. MWD serves 26 member agencies and imports water from the Colorado River Aqueduct (CRA) and the State Water Project (SWP) in the Sacramento–San Joaquin Delta and distributes this water to its member agencies.

Based on projected growth, MWD expects that water demand in its service area will rise from a current demand of 3.6 million acre-feet per year (afy) to 4.8 million afy by 2020. To accommodate this projected growth, MWD developed an integrated resources program (IRP) in 1996. The IRP is a 25-year comprehensive water resources plan for Southern California and was last updated in 2003. The plan is a multifaceted approach towards the development and maintenance of reliable water supplies that are

1 Waterworks District No. 29 , Malibu and the Marina del Rey Water System, *2010 Urban Water Management Plan*

2 Waterworks District No. 29 , Malibu and the Marina del Rey Water System, *2010 Urban Water Management Plan*

necessary to meet an increasing demand. The IRP proposes to combine water conservation, surface and groundwater storage, water transfers and exchanges, water recycling and water imports as a managed and integrated strategy to provide a stable and reliable source of water to its customers. The MWD's objective is to ensure reliability, affordability, quality, diversity, and adaptability of the regional water supply. Implementation of plans and programs identified in the IRP will allow MWD to provide water to all the firm's wholesale water demands of its member agencies through 2025.

Water Infrastructure

The City of Malibu receives water through a 30-inch water main running along Pacific Coast Highway, with several distribution pipelines running north towards the canyons.[3] Water is pumped at several locations from the main transmission pipeline into canyons and other parts of the City. The Malibu Beach Pump Station, an in-line pump station, maintains pressure in the western half of the transmission main line.[4]

The project site fronts a 12-inch water main along Civic Center Way and a 10-inch water main along Cross Creek Road.[5] While the project site is located within the vicinity of an existing water main owned and operated by WWD No. 29, the site is located in an area which lacks sufficient infrastructure and necessary facilities including, water storage tanks, pumps and pipes.[6]

REGULATORY FRAMEWORK

Federal

Safe Water Drinking Act

The federal Clean Water Act (CWA) Section 401[7] regulates the discharges of pollutants into "waters of the US" from any point or non-point source.

In 1972, the CWA was amended to prohibit the discharge of pollutants to waters of the United States unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The CWA focused on tracking point sources, primarily from wastewater treatment facilities and industrial waste dischargers, and required implementation of control measures to minimize pollutant

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3 Los Angeles County Waterworks Districts, District 29, written communication with Ramy Gindi April 9, 2014

4 Los Angeles County Waterworks Districts, District 29, written communication with Ramy Gindi April 9, 2014

5 Los Angeles County Waterworks Districts, District 29, written communication with Ramy Gindi April 9, 2014

6 Los Angeles County Waterworks Districts, District 29, written communication with Ramy Gindi April 9, 2014

7 US Code of Federal Regulations, Title 33, Section 404, Clean Water Act.

discharges. The CWA was amended again in 1987, to provide a framework for regulating municipal and industrial storm water discharges.[8] In November 1990, the US Environmental Protection Agency (US EPA) published final regulations that establish application requirements for specific categories of industries, including construction projects that encompass greater than or equal to 5 acres of land. The Phase II Rule became final in December 1999, thus expanding regulated construction sites to those greater than or equal to 1 acre. The regulations require that storm water and non-storm water runoff associated with construction activity, which discharges either directly to surface waters or indirectly through municipal separate storm sewer systems (MS4s), must be regulated by an NPDES permit.

In the State of California, the program is administered by the local Regional Water Quality Control Board (RWQCB).

State

Urban Water Management Planning Act

The Urban Water Management Planning Act[9] (UWMPA) requires urban water suppliers that provide water for municipal purposes to more than 3,000 customers, or more than 3,000 afy of water, to prepare an urban water management plan (UWMP). The intent of the UWMP is to assist water supply agencies in water resource planning given their existing and anticipated future demands. The UWMP must include a water supply and demand assessment comparing total water supply available to the water supplier with the total projected water use over a 20-year period. It is also mandatory that the management plans be updated every five years.

In recognition of the state requirements, the Los Angeles County Department of Public Works has prepared the 2010 UWMP for the District. The purpose of the plan is to document the District's projected water demands and its plans for delivering water supplies to the District's water service area. This plan includes all information necessary to meet the requirements of California Water Code.

Local Regulations

City of Malibu General Plan

The City's General Plan is primarily a policy document that sets goals concerning the community and gives direction to growth and development. In addition, it outlines the programs that were developed to accomplish the goals and policies of the General Plan. The Plan's Conservation Element serves as a guide

8 US Code of Federal Regulations, Title 33, Section 402, Clean Water Act.

9 US Code of Federal Regulations Sections 10610–10657, Urban Water Management Planning Act.

for the conservation, protection, restoration, management, development, and appropriate and responsible utilization of the City's existing natural resources. The Conservation Element includes goals and policies pertaining to water supply such as coordinating with development to ensure adequate water supplies and encourage the use of drought resistant landscaping. The Conservation Element includes the following goals and policies pertaining to the proposed project and water supply:

CON-Goal-4: Water conserved

CON-Policy 4.1.1: The City shall provide water for residents' needs in the most cost effective manner.

CON-Policy 4.1.2: The City shall coordinate development to ensure adequate water supplies.

CON-Policy 4.1.3: The City shall encourage water conservation design measures in residential, commercial, and industrial development.

CON-Policy 4.1.4: The City shall promote the use of water efficient low flow fixtures.

CON-Policy 4.1.5: The City shall encourage the use of drought resistant landscaping.

CON-Policy 4.1.6: The City shall promote the use of reclaimed water that has had pathogens removed for appropriate uses such as landscape irrigation systems.

City of Malibu Local Costal Plan

The California Coastal Act requires that its goals and policies be implemented by local government through the Local Costal Plan (LCP) process. Because the City of Malibu lies entirely within the state designated Coastal Zone, the City of Malibu's LCP is the primary document that guides future development within the City and makes recommendations for the preservation of resources. The City of Malibu's LCP consists of two sections: the Land Use Plan (LUP) and the Local Implementation Plan (LIP). Both were certified by the California Coastal Commission on September 13, 2002.

PROJECT DESIGN FEATURES

The proposed project includes several sustainable design features in an effort to decrease the amount of water supply necessary during operational activities. Landscape features include the use of drought-tolerant and Santa Monica Mountains-native plants and a weather-sensitive and water-efficient irrigation system. High efficiency systems including ultra-low flow dual flush water closets, waterless or low flow urinals, sinks with metering faucets, and tankless water heaters will be installed. In addition, as stated in

the Civic Center Wastewater Treatment Facility Project Draft EIR, operation of the wastewater treatment facility would result in the production of recycled water which can be used for landscaping irrigation. Environmental review of the wastewater treatment facility is still being completed, if recycled water can be provided to the project site for landscaping purposes, this opportunity will be reviewed at a later date to determine the level of feasibility.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

The following thresholds for determining the significance of impacts related to water supplies are contained in the environmental checklist form contained in Appendix G of the most recent update of the *California Environmental Quality Act (CEQA) Statutes and Guidelines*. Impacts related to water supplies are considered significant if the proposed project would:

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

Impact Analysis

Threshold 3.14.3-1 **Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.**

Water would be used during construction primarily as a dust palliative and to moisten the fill dirt to achieve the required compaction during all grading and excavation activities. During construction, no commercial water use would occur on the project site and it is expected that low volumes of water would be consumed for construction uses. The amount of water required for construction uses is anticipated to be minimal making construction impacts less than significant.

As mentioned above, the water supply and infrastructure system serving the project site includes a 12-inch water main along Civic Center Way and a 10-inch water main along Cross Creek Road The applicant has agreed to design and construct all water related property specific improvements including a 12-inch water main approximately 5,000 feet long, pump station upgrades, a regulating station, and an approximately 800,000 gallon water tank. These improvements are necessary in order for

WWD No. 29 to provide the customary level of water service required by the Los Angeles County Fire Department and the commercial uses associated with the proposed project.[10]

Upon completion of construction of these improvements, the applicant would dedicate the water infrastructure upgrades to WWD No. 29.[11] Impacts from the construction of new water treatment facilities and the expansion of existing facilities would be less than significant. No mitigation is required.

Mitigation Measures

No mitigation measures are required.

Residual Impacts

Less than significant.

Threshold 3.14.3-2 Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

Development of the project site as a neighborhood shopping center would increase water demand, as operation of the site would require potable water for restrooms (i.e., sinks, toilets), washing of dishes, and food service. Further, the proposed project would also include drought tolerant landscaping which would require additional water for plant maintenance.

Projected water consumption rates associated with the proposed project is assumed to be 120 percent of the wastewater generated of a given land use. **Table 3.14.3-1, Whole Foods Shopping Center Approximate Water Consumption,** includes the projected wastewater generation for the proposed project, as well as the projected potable water. The proposed project is expected to require approximately 11,208 gallons of water per day (gpd).

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11 Los Angeles County WWD No. 29, Conditional Will Serve Letter

Table 3.14.3-1
Whole Foods Shopping Center Approximate Water Consumption

Use[1]	Wastewater Flow (gpd)	Generation Rate	Potable Water Consumption (gpd)
Whole Foods Market	4,910	1.20	5,892
Building 1	1,979		2,374.8
Building 2	1,829		2,194.8
Building 3	287		344.4
Building 4	335		402
Total			**11,208**

[1] *For a detailed description of uses within in each building please see* ***Section 3.14.4, Table 3.14.4-1***

It should be noted that water duty factors based on land use for the City of Malibu were provided by WWD 29. The two vacant parcels which comprise the project site are both are designated CV-1 (Commercial Visitor Serving 1) according to the Local Coastal Plan (LCP) land use and zoning maps. WWD No. 29 has determined that parcels zoned CV-1 require 900 gallons of water per day per acre.[12] With a generation rate of 900 gpd/acre the proposed project would require approximately 5,292 gpd of water (5.88 [acres] * 900 gpd). This Draft EIR relies on the more conservative estimate of 11,208 gpd of water when determining the water supply needed for the proposed project.

These water estimates are considered extremely conservative and do not reflect the energy saving features, discussed above, of the proposed project such as low flow fixtures, the use of drought tolerant landscaping, and the requirement to achieve energy consumption rates 15 percent greater than what is required by Title 22. With incorporation of these water saving features, it is expected the proposed project would use less than the projected 11,208 gpd.

Water supply entitlements have been secured through WWD No. 29 and are adequate to serve the projected growth in Malibu, including the proposed project. WWD No. 29 purchases water from the West Basin Municipal Water District, which purchases water from the MWD. MWD includes adequate water resources in its Integrated Resources Plan. Therefore, WWD No. 29 would be able to adequately supply the proposed project.

In addition to the required daily water supply, the proposed project would be required to install one public fire hydrant and three private on-site fire hydrants. The water pressure needed to supply the required fire flow of 2,000 gallons per minute (gpm) at 20 psi residual pressure for two consecutive hours

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for public fire hydrants and 1250 gpm at 20 psi for private fire hydrants would be provided by connecting the proposed on-site water infrastructure to the existing mainline in Civic Center Way. According to Los Angeles County Department of Public Works, Waterworks District 29, adequate water flow exists to serve the project site. The project site is located near an existing water main currently owned and operated by WWD No. 29 which under normal conditions would have adequate pressure to accommodate the necessary fire flow.[13]

The proposed project is required to meet the Los Angeles County Green Building Ordinance (as adopted by the City of Malibu Municipal Code, Section 15.24.010), which includes the County's Drought-Tolerant Landscaping Ordinance. In addition, as part of the project, the following features would be incorporated to reduce overall water demand:

> *The proposed project shall incorporate into the building plans water conservation measures as outlined in the following items:*
>
> - *Health and Safety Code Section 17921.3 requiring low-flow toilets and urinals;*
> - *Title 24, California Administrative Code, which establishes efficiency standards for shower heads, lavatory faucets and sink faucets, as well as requirements for pipe insulation, which can reduce water used before hot water reaches equipment or fixtures; and*
> - *Government Code Section 7800, which requires that lavatories in public facilities be equipped with self-closing faucets that limit the flow of hot water.*

With the above "low-impact" design measures, overall water usage would be reduced. Guidelines concerning drought-tolerant and native landscaping included in the County's Green Building Ordinance and the Drought-Tolerant Landscaping Ordinance would also reduce the proposed project's water demands. Regulations such as, at least 75 percent of the project's total landscaped area must be comprised of specified drought tolerant plants, would reduce the site's water usage and runoff. A supplementary measure to the ordinances referenced above, Government Code Section 7800, would further ensure limited personal excess use of water by installing self-regulated public faucets. In addition, the applicant is required to provide the City of Malibu with a letter from WWD No. 29 confirming their ability to serve the project. Further, compliance with Malibu Municipal Code, Section 15.24.010 will ensure impacts would remain less than significant.

Mitigation Measures:

No mitigation measures are required.

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13 WWD No. 29 Developer Participation Agreement Letter

Residual Impacts

Impacts would be less than significant.

Cumulative Impacts

Entitlements for water have been secured and are adequate to serve existing uses and projected growth in Malibu. **Table 3.14.3-2, Water Consumption by Proposed Project and Related Projects**, provides estimates of the water demand that would be created by related projects using the generation factors discussed above.

Table 3.14.3-2
Water Consumption by Proposed Project and Related Projects

Land Use	Size/Units	Consumption Rate[1]	Daily Consumption (gpd)	Yearly Consumption (gpy)
Single-Family	57 units	312 gpd/unit	17,784	6,491,160
Condominium/Townhome[2]	40 units	187.2 gpd/unit	7,488	2,733,120
Restaurant	13,004 sf	1,200 gpd/1,000 sf	15,604.8	5,695,752
Hotel	146 rooms	150 gpd/rooms	21,900	7,993,500
Spa	20,298 sf	360 gpd/1,000 sf	7,307.28	2,667,157.2
Commercial/Office	68,639 sf	390 gpd/1,000 sf	26,769.21	9,770,761.6
Commercial/Retail	101,476 sf	390 gpd/1,000 sf	39,575.64	14,445,108
Regional Shopping Center[3]	129,423 sf	360 gpd/1,000 sf	46,592.28	17,006,182
High School[4]	35,315 sf	-	-	-
Satellite Junior College Campus	200 students	24 gpd/student	4,800	1,752,000
Fire Station[5]	1 unit	312 gpd/unit	312	113,880
		Subtotal	**188,133.21**	**37,248,782.09**
		Proposed Project	**11,208**	**4,090,920**
		Total	**199,341.21**	**41,339,702.09**

Source: Water consumption rates were taken from the La Paz Development EIR

[1] *Water consumption rates assumed to be 120 percent of wastewater generation rates*

[2] *Multi-family was used as a proxy for condominium/townhome*

[3] *Community Center was used as a proxy for Regional Shopping Center*

[4] *The high school improvement project (35,315 sf) refers to the Malibu Middle and High School (MMHS) Campus Improvement Project. According to the MMHS EIR the project would neither expand the existing boundaries of MMHS, nor increase enrollment capacity.*

[5] *Single-family was used as a proxy for the Fire Station*

gpd = gallons per day, gpy = gallons per year, sf = square feet.

As shown in **Table 3.14.3-2**, related projects would create demand for an estimated 188,133.21 gpd, and 3.7 million gallons of water per year. Combined with project demand, this would create a total water demand of 199,341.21 gpd of water and 41 million gallons of water per year. Increased use of recycled water, particularly through implementation of the proposed Civic Center Wastewater Treatment Facility (CCWTF), could reduce the demand for water required by individual developments. Nonetheless, this new demand created by the proposed project and related projects would constitute a substantial increase in water demand in the project area. However, coordination and compliance with all measures recommended by the City regarding individual projects water requirements and verification that appropriate funds have been received for the development of water supply and distribution facilities would reduce potential impacts.

As discussed above, MWD's IRP provides a long-range plan for addressing increased water demand in its service area and the growth described in **Table 3.14.3-2** is consistent with the Malibu land use plan. In addition, grading permits shall not be issued until such time that WWD No. 29 indicates that the distribution system and water supply are adequate to serve the project. Therefore, impacts would not be cumulatively considerable and the proposed project would not contribute to a cumulative impact.

Mitigation Measures

No mitigation measures are required.

Residual Impacts

Impacts would be less than significant.