
4. ENVIRONMENTAL IMPACT ANALYSIS

12. PUBLIC UTILITIES

1. SEWER

1. INTRODUCTION

This section analyzes the Proposed Project's potential environmental impacts on sewer services. The analysis of utility impacts focuses upon the relationship between anticipated discharge volumes and rates and the available treatment system's capacity to accommodate the Project's anticipated sewer flows. Capacity relates to the existing or planned capacity of infrastructure to service current and future utility needs. The analysis below establishes existing baseline wastewater flow volumes and describes the existing sewage disposal system serving the Project Site. It then calculates the wastewater generation rates and volumes created by the Project, and evaluates that data in comparison to the planned wastewater treatment plan and pipeline capacities that are proposed to serve the Project Site and surrounding Civic Center area.

2. ENVIRONMENTAL SETTING

(a) Regional Setting

The City of Malibu does not maintain a publicly owned and operated sewer system. All property in the City of Malibu is served by private on-site wastewater treatment systems (OWTS). The Project Site is currently served by a private on-site septic system that is connected to and services the buildings within the Malibu Civic Center complex. A pump station is located in the basement of the former Sheriff's Station building and septic tanks are located north of the buildings under the Public Works yard. The leach field serving these tanks is located on the property to the north of the Project Site.¹

(b) Water Quality

The water quality of water bodies and watersheds near the Project Site can be affected by the discharge of untreated wastewater. The Tapia Wastewater Treatment Plant is known to cause wastewater discharge to bodies of water such as Malibu Creek, Malibu Lagoon, and consequently Santa Monica Bay. The discharge of such wastewater, along with other sources including stormwater runoff, has led to increased levels of nitrogen and pathogens in area water bodies.² Under the Clean Water Act (CWA), the State of California is required to issue a list of all impaired water bodies in the State. An impaired water body, by definition provided in CWA Section 303(d) is a body that does not meet water quality regulations and therefore has imposed Total Maximum Daily Loads (TMDLs). A TMDL is the maximum amount of wastewater allowed to be discharged into a given water body each day.³ The State Water Resources

¹ *Ellis Environmental Management, Inc., Report of Phase I Environmental Site Assessment, August 15, 2011.*

² *Malibu Bay Company DA Project, Draft EIR SCH#2001051063, September 2002.*

³ *State Water Resources Control Board, website: http://www.waterboards.ca.gov/rwqcb9/water_issues/programs/303d_list/index.shtml, accessed December 2013.*

Control Board, Division of Water Quality issues the listings of impaired water bodies. According to the 1998 list, Malibu Creek, Malibu Lagoon, Malibu Beach, and Surfrider Beach are impaired water bodies with imposed TMDLs.⁴ A complete discussion of impacts to water quality is included in Section 4.7, Hydrology/Water Quality.

(c) On-Site Wastewater Treatment Systems (OWTS)

The City of Malibu is not served by a citywide wastewater treatment facility. Sewage from most properties within the City of Malibu is disposed of via separate OWTSs for each property. As discussed above, water quality issues associated with the discharge of wastewaters released from OWTS, specifically in the Civic Center area in the City of Malibu, to groundwater has led to elevated levels of pathogens and nitrogen that impair underlying groundwater as a potential source of drinking water and pathogens that elevate risks of infectious disease for water contact recreation.⁵

(d) Civic Center Area Septic Prohibition and Memorandum of Understanding

On November 5, 2009, the Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board) adopted Resolution R4-2009-007 approving an amendment to Chapter IV of the Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan), to prohibit on-site wastewater disposal systems (OWDS) in the Malibu Civic Center Area, as defined in Resolution R4-2009-007, (Basin Plan Amendment).⁶ The “Malibu Civic Center Area” is defined as the area within the lower Winter Canyon watershed, Malibu Valley watershed and adjacent coastal strips between and including Amarillo Beach and Surfrider Beach.⁷ The boundaries of the Malibu Civic Center On-site Wastewater Disposal Prohibition Area are shown in Figure 4.12.1.1, Civic Center Wastewater Treatment Facility Schedule.

Pursuant to Sections 13240 and 13241 of the California Water Code, the Basin Plan includes a prohibition on discharges from on-site wastewater disposal systems in the Civic Center Area except certain specific projects that have already progressed through the entitlement process, and are identified on Table 4-zz of the Basin Plan Amendment. The prohibition also includes discharges from existing systems within six years in commercial areas and within ten years in residential areas from the date of adoption by the Regional Board of the Basin Plan amendment as specified in Figure 4-yy of the Basin Plan Amendment. The prohibition does not preclude a publicly owned, community-based, solution that includes specific

⁴ *The 1998 California 303(d) List of Impaired Waters for the Los Angeles Region, Los Angeles Regional Water Quality Control Board, 1998.*

⁵ *State of California, California Regional Water Quality Control Board, Los Angeles Region Resolution No. R4-2009-007 Amendment to the Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties to Prohibit On-site Wastewater Disposal Systems in the Malibu Civic Center Area, November 5, 2009.*

⁶ *City of Malibu, Memorandum of Understanding Regarding Phased Implementation Of Basin Plan Amendment Prohibiting On-Site Wastewater Disposal Systems In The Malibu Civic Center Area, August 2011.*

⁷ *State of California, California Regional Water Quality Control Board, Los Angeles Region Resolution No. R4-2009-007 Amendment to the Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties to Prohibit On-site Wastewater Disposal Systems in the Malibu Civic Center Area, November 5, 2009.*

wastewater disposal sites subject to waste discharge requirements to be prescribed by the Regional Board.⁸

On August 23, 2011 the State Board approved a Memorandum of Understanding (MOU) with the City. The MOU establishes time frames and milestones for the City to achieve compliance with the Prohibition.⁹ Pursuant to Water Code section 13225, the City of Malibu is required to submit quarterly written reports to the Executive Officer, summarizing the strategy and progress toward meeting the 2015 prohibition deadline.¹⁰

The City of Malibu is working on programs to manage stormwater runoff and wastewater. Implementation of the City's OWTS Operating Permit program includes contributing to the development of the City's proposed Civic Center Wastewater Treatment Facility design and operation.¹¹ Phase One of the MOU includes the construction of the central Wastewater Treatment Facility. By November 5, 2015 wastewater discharge of those properties within the boundaries of the yellow area, as shown in Figure 4.12.1.1, will be required to connect to the Wastewater Treatment Facility (See Figure 4.12.1.2, Civic Center Wastewater Treatment Facility Phase 1, 2 and 3 Layout). Funding of the construction for the Wastewater Treatment Facility is supported by Prop 218, which includes the property owners served by Phase One. Phase Two of the Wastewater Treatment Facility includes the coral-colored area shown in Figure 4.12.1.2, which will be required to connect to the Wastewater Treatment Facility by November 5, 2019. Prop 218 will then include those property owners affected by Phase Two. The City will begin Phase Three, as shown in Figure 4.12.1.2 by the fuchsia-colored area, upon completion of Phase One and Two, and upon completion of a water quality sampling program. The water quality sampling program shall be designed and implemented to determine whether the implementation of Phase One and Two have resulted in a meaningful decrease in bacteria and nitrogen in the Malibu Lagoon.¹²

The Proposed Project's operation is contingent on the successful construction of the Wastewater Treatment Facility, as the Proposed Project will be required to connect to the Wastewater Treatment Facility as part of Phase One. The latest quarterly progress report for the Malibu Civic Center Wastewater Treatment Plan, which covers work activities performed on this project during the period of

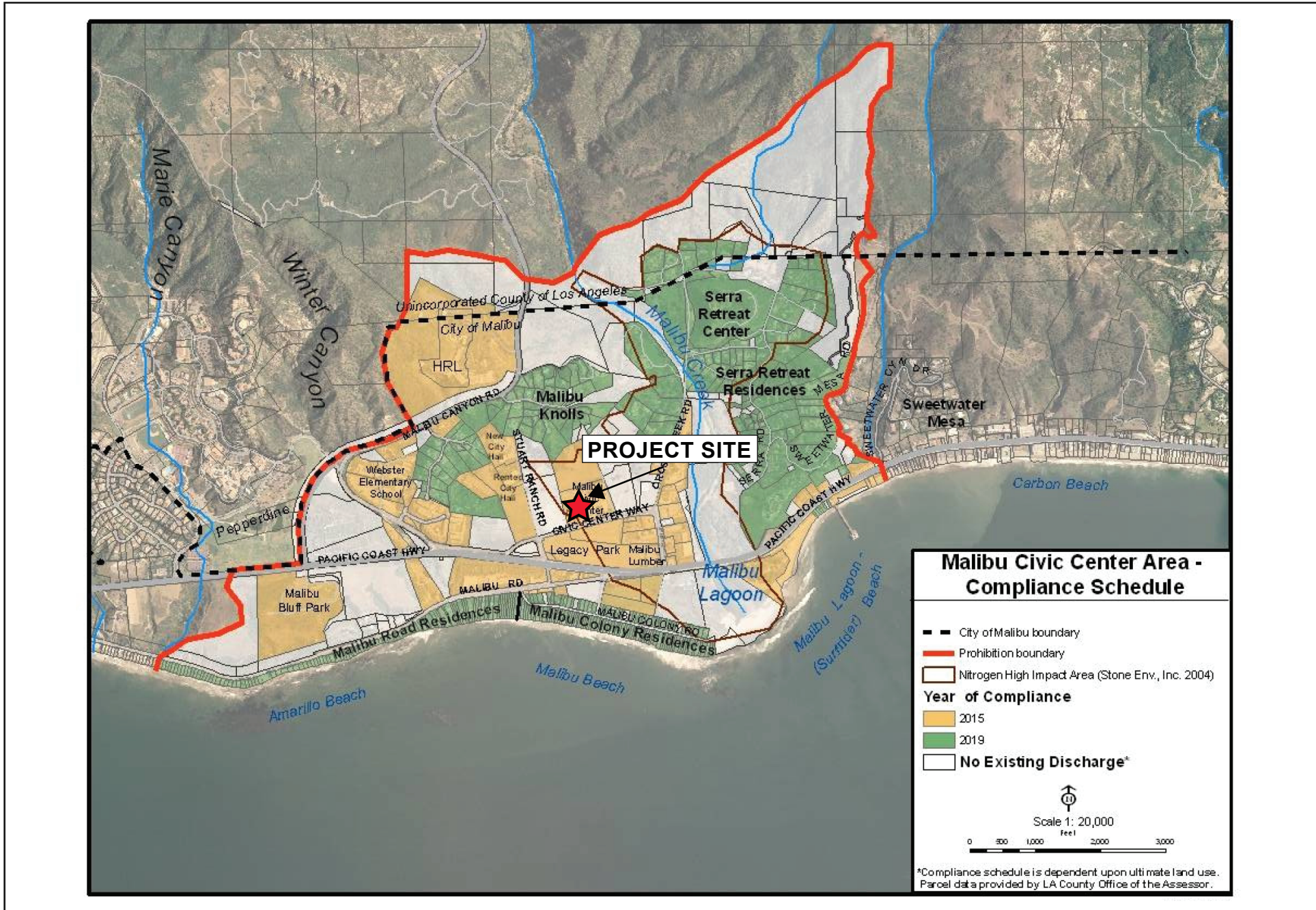
⁸ *Ibid.*

⁹ *City of Malibu, Environmental Sustainability Department, Policy For Environmental Health Review of Development Projects Within The Civic Center Prohibition Area, website: <http://www.ci.malibu.ca.us/Index.aspx?NID=261>, accessed November 2014.*

¹⁰ *State of California, California Regional Water Quality Control Board, Los Angeles Region Resolution No. R4-2009-007 Amendment to the Water Quality Control Plan for the Coastal Watersheds of Ventura and Los Angeles Counties to Prohibit On-site Wastewater Disposal Systems in the Malibu Civic Center Area, November 5, 2009.*

¹¹ *City of Malibu, California, website: <http://www.ci.malibu.ca.us/index.aspx?nid=517>, November 2014.*

¹² *City of Malibu, Memorandum of Understanding Regarding Phased Implementation Of Basin Plan Amendment Prohibiting On-Site Wastewater Disposal Systems In The Malibu Civic Center Area, August 2011.*



Source: State of California, California Regional Water Quality Control Board, Los Angeles Region, Resolution No. R4-2009-007, Exhibit 1, November 5, 2009



Source: City of Malibu, Malibu Civic Center Wastewater Treatment Facility Project, Draft Environmental Report, SCH# 2013111075, Chapter 3 –Project Description – Recirculated Section dated June 2014.

April 1, 2014 through June 30, 2014, reports that to date, the City is meeting all MOU milestones requirements. The design of the wastewater treatment plant and collection system is now almost 96% complete. Additionally, the report notes that modeling of the groundwater injection scenarios have been completed and that injection capacity is available for all phases of the project. Results from this groundwater modeling work has also confirmed the direction of flow of the injected waters and that the injected waters do not flow to the Malibu Creek or Lagoon for the full range of flows expected through the Phase 3 build-out conditions. Modeling scenarios for groundwater levels before and after project implementation also confirm that the groundwater levels throughout the study area will be lower. The project's Draft Environmental Impact Report (Draft EIR) was released for public review on May 30, 2014. A Recirculated Draft EIR was also released on June 12, 2014.¹³

(e) Existing Wastewater Generation

As discussed above, the City of Malibu does not maintain a publicly owned and operated sewer system and therefore, all property in the City of Malibu is served by OWTS. The Project Site is currently served by an on-site septic system. A pump station was observed in the basement of the former Sheriff's Station building and septic tanks are located north of the buildings under the Public Works yard. The leach field serving these tanks is located on the property to the north of the site.¹⁴ As noted in Table 4.12-1, the existing Sheriff's Station on the Project Site has the potential to generate approximately 2,866 gallons per day of wastewater if the building was occupied. However, at the present time the building is vacant and generates zero wastewater.

**Table 4.12-1
Existing Wastewater Generation Potential**

Land Use	Size (sf)	Wastewater Generation Rate ^a	Total (gpd)
Los Angeles County Sheriff's Station	23,882	120 gpd/1,000 sf	2,866
Total Existing			2,866
Notes: sf = square feet; gpd = gallons per day			
^a Sewage Generation Factor provided by City of Los Angeles, Bureau of Sanitation.			
Source: Parker Environmental Consultants, 2014.			

¹³ City of Malibu, Memorandum of Understanding (MOU) Quarterly Progress Report Malibu Civic Center Wastewater Treatment Plan, website: <http://www.malibucity.org/DocumentCenter/View/6627>, November 2014.

¹⁴ Ellis Environmental Management, Inc., Report of Phase I Environmental Site Assessment, August 15, 2011.

3. ENVIRONMENTAL IMPACTS

(a) Thresholds of Significance

The City of Malibu General Plan EIR considers wastewater impacts created by the project as being potentially significant if implementation would:

- Result in the potential to generate more wastewater than can be adequately and efficiently disposed of on the property where it is generated; the wastewater generated has the potential to adversely effect groundwater; the wastewater generated has the potential to percolate and affect groundwater elevations and flow directions sufficiently to contribute to slope instability; and/or the proposed wastewater disposal system is not adequate to provide the required level of wastewater treatment.

The CEQA Guidelines (Appendix G) identifies applicable criteria for determining whether a project's impacts are considered to have a significant effect on the environment. A project is considered to create a significant impact if:

- It would exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, or
- 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.

(b) Project Impacts

The Proposed Project includes the demolition of the existing Sheriff's Station and the construction of a 19,670 square foot community college facility and a 5,640 square foot Sheriff's Substation. One of the Project's stated Project Objectives is to achieve the successful sustainable building standards of Santa Monica College by constructing a LEED certified structure that promotes efficiencies in water and energy use. The proposed structure has been designed to achieve LEED certification for institutional land uses. As shown in Table 4.12-2, Estimated Wastewater Generation, the wastewater generated from the Proposed Project is estimated to be approximately 9,747 gallons per day. An Environmental Health Review was submitted to the City of Malibu Environmental Health Administrator on November 14, 2013, which concluded that an OWTS Plot Plan is not required for the Proposed Project (See Appendix C of this Draft EIR). Environmental Health conditions of approval are incorporated into the mitigation measures on the following pages. The Proposed Project is prohibited from utilizing the existing septic system on the Project Site, pursuant to Sections 13240 and 13241 of the California Water Code. As such, the Proposed Project's operation is contingent on the construction of the Wastewater Treatment Facility, as the Proposed Project will be required to connect to the new facility once it is operational.

**Table 4.12-2
Estimated Wastewater Generation**

Land Use	Unit	Wastewater Generation Rate ^a	Total (gpd)
SMC Malibu Campus Facility ^{b, c}	535	16 gpd/student	8,560
Sheriff's Station (office area)	5,640	120 gpd/1,000 sf	677
Sheriff's Station (holding area)	6	85 gpd/inmate	510
Total			9,747

Notes: sf = square feet; gpd= gallons per day
^a Sewage rate generation factors provided by City of Los Angeles, Bureau of Sanitation Sewer Design Manual.
^b The maximum occupant capacity for the SMC Malibu Campus Project is 500 students.
^c The anticipated number of students for the SMC Malibu Campus Project is 210 FTE.
Source: Memorandum from BK Kang, KPF Consulting Engineers, to Damon Herring, Quatro Design Group, Re: SMC Malibu Campus – Anticipated Daily Sewer Flow Rate, July 18, 2014.

The EIR for the Wastewater Treatment Facility is currently underway. As noted in the EIR, the Wastewater Treatment Facility would include construction of a centralized wastewater treatment plant, nine pump stations, approximately 13.7 miles of pipeline for collection of wastewater and distribution of treated effluent (recycled water) for reuse and/or disposal, disposal facilities such as injection wells and percolation ponds, and associated ancillary facilities. Based on flow projections, modeling and testing results available at this time, the treatment capacity is expected to be 507,000 gallons per day. Additionally, the service area for the Facility would match the boundaries of the Prohibition Zone.¹⁵ Therefore, it is expected that the increase in the wastewater generated by the Proposed Project would not exceed the amount accounted for in the design and construction of the Wastewater Treatment Facility for the Civic Center Area and impacts associated with wastewater would be less than significant with incorporation of the mitigation measures listed below.

(c) Cumulative Impacts

A “cumulative impact” refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental effects.¹⁶ Pursuant to Section 15130(a) of the State CEQA Guidelines, an EIR must discuss the cumulative impacts of a project when the project’s incremental impacts are cumulatively considerable. An impact is considered “cumulatively considerable” when the incremental impacts of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.¹⁷ When the lead agency is examining a project with an incremental effect that is not “cumulatively considerable,” the lead agency need not consider that effect significant, but must briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

¹⁵ City of Malibu, Malibu Civic Center Wastewater Treatment Facility Project, Draft Environmental Report, SCH# 2013111075, June 2014, Chapter 1 – Executive Summary – Recirculated Section dated June 2014, website: <http://www.malibucity.org/DocumentCenter/View/6480>, accessed September 2014.

¹⁶ CEQA Guidelines Section 15355.

¹⁷ CEQA Guidelines Section 15065(a)(3).

Pursuant to CEQA Guidelines Section 15130(b)(1)(A)(B), an adequate discussion of a project's significant cumulative impact, in combination with other closely related projects, can be based on either: (1) a list of past, present, and probable future producing related impacts; or (2) a summary of projections contained in an adopted local, regional, or statewide plan, or a related planning document that describes conditions contributing to the cumulative effect. The lead agency may also blend the "list" and "plan" approaches to analyze the severity of impacts and their likelihood of occurrence. For purposes of assessing the Project's cumulative impact with respect to wastewater generation and treatment, the analysis below is appropriately based on a plan-based approach to determine the Project's contributing impact to the City's proposed Wastewater Treatment Facility. The plan approach is appropriate for the land use analysis because occupancy and operation of the Proposed Project will be conditioned upon connecting to the City's proposed Wastewater Treatment Facility. Thus, to the extent the Proposed Project's wastewater flows are within the projected rates for the Project as planned for by the City, a significant impact would not occur. As the wastewater needs of the Proposed Project are accounted for in the current design and construction of the Wastewater Treatment Facility, no cumulative impacts would occur.

4. MITIGATION MEASURES

- PU-1 Occupancy and operation of the Proposed Project shall be conditioned upon the successful operation of and connection to the City's proposed Civic Center Wastewater Treatment Facility, not on-site. The average wastewater generation rate for the project shall not exceed 11,102 gallons per day.
- PU-2 Certificate(s) of Occupancy for this project shall not be issued until the Civic Center Wastewater Treatment Facility (under separate permit CDP 13-057) is constructed and operational, and all on-site sewer connections to the new sewer laterals are completed.
- PU-3 Conditions of approval by the City of Malibu Public Works Department for Sewer are incorporated by reference into the Environmental Health Conditions of approval.

5. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Following the implementation of the above listed mitigation measures, any potentially significant impacts to wastewater services would be mitigated to a less than significant level.

4. ENVIRONMENTAL IMPACT ANALYSIS

12. PUBLIC UTILITIES

2. WATER

1. INTRODUCTION

This section analyzes the Proposed Project's potential environmental impacts on potable water resources. The analysis of utility impacts focuses upon the relationship between anticipated water demands and the ability of the local water provider to accommodate the Proposed Project's anticipated water demands. Capacity relates to the existing or planned capacity of infrastructure to service current and future utility needs. The analysis below establishes existing baseline water use and describes the existing potable water system serving the Project Site. It then calculates the Proposed Project's anticipated water demands and evaluates that data in comparison to the water supplier's ability to serve accommodate that demand. In addition to supply, the analysis also accounts for the capacity of the existing system to meet the system requirements to maintain adequate water pressure with respect to the Fire Department's standards for adequate fire flow in the case of emergencies.

2. ENVIRONMENTAL SETTING

(a) Regional Setting

Water service to the City of Malibu is provided by the Los Angeles County Waterworks District 29. Waterworks District 29 obtains its water mostly from the West Basin Municipal Water District (WBMWD), but also receives portions from the Las Virgenes Municipal Water District (LVMWD) and the City of Los Angeles Department of Water and Power (LADWP). Waterworks District 29 currently serves a population of 20,115 people.¹⁸

The WBMWD supplies water to the South Bay and wholesales the imported water to cities and private companies in southwest Los Angeles County. The WBMWD purchases water from the Metropolitan Water District. West Basin's service area uses 220,000 acre-feet of water annually.¹⁹

The Las Virgenes Municipal Water District supplies water to Agoura Hills, Calabasas, Hidden Hills, Westlake Village, and nearby unincorporated areas of Los Angeles County. The LVMWD obtains its water from the Metropolitan Water District, which imports its water from the Colorado River Aqueduct. Annually, the LVMWD distributes about 25,000 acre-feet of water to the communities it serves.²⁰

The City of Los Angeles Department of Water and Power supplies water to the City of Los Angeles, serving 465 square miles. The LADWP obtains its water from three main sources: the Los Angeles

¹⁸ *Department of Public Works, District Maps, website: <http://dpw.lacounty.gov/wwd/web/About/Maps.aspx>, accessed November 2014.*

¹⁹ *West Basin Municipal Water District Website <http://www.westbasin.org/about-west-basin>, accessed November 2014.*

²⁰ *Las Virgenes Municipal Water District Website <http://www.lvmwd.com/your-water/potable-water/facilities>, accessed November 2014.*

Aqueduct (LAA), local groundwater mainly from the San Fernando Basin, and the Metropolitan Water District (MWD). The LAA transports snowmelt from the Sierra Nevada's and water from Mono Basin and the Owens Valley to Los Angeles, supplying about 36 percent of the LADWP's water. The San Fernando, Central, Sylmar, and West Coast groundwater basins provide the LADWP with about 12 percent of its water. The MWD supplies about 52 percent. According to the LADWP, water demand in Los Angeles for residential, commercial and industrial uses is approximately 480,302 acre-feet per year.²¹

(b) Local Water Infrastructure

The City of Malibu receives water through a 30-inch water main running along Pacific Coast Highway. Smaller water mains connect to this water main and run to other parts of the city. The Project Site has water mains beneath Civic Center Way and Cross Creek Road, ranging in size from six inches to twelve inches. There are smaller mains branching off of these mains that range from four inches to eight inches.

The Los Angeles County Department of Public Works (LACDPW) is currently assessing future water demand for the Waterworks District 29 system. The Water System Master Plan (WSMP) document is a guideline for the planning of and for the evaluation of the water system under existing and future demand conditions through year 2035. This evaluation addresses existing system deficiencies and new facility requirements to meet rising demands over time. The report provides details for a proposed Capital Improvement Program (CIP) for the water system, including prioritization and construction cost estimates. Financing options are also outlined and described in this report. The WSMP consists of six key tasks:²²

- Demand Projections: Evaluation of existing demands and projection of future and build-out demands
- Facility Operations: Evaluation of existing water system facilities and their operations
- Model Development and Calibration: Development of a calibrated model for use in static and extended period simulations in InfoWater
- System Evaluation: Evaluation of system hydraulics, water quality and energy under existing and build-out demand conditions
- Capital Improvement Program: Creation of a capital improvement program to price and phase the recommendation in the system
- Funding Options: Research and present financing options for the construction of required facilities present in the Capital Improvement Plan.

²¹ Los Angeles Department of Water and Power Website, https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water/a-w-factandfigures?_adf.ctrl-state=1cv52ejxt2_4&_afzLoop=568298080666700, accessed December 2013.

²² Los Angeles County Waterworks District, Pilot Projects/Studies, website: <http://dpw.lacounty.gov/wwd/web/Documents/Executive%20Summary.pdf>, accessed December 2013.

(c) Existing Water Demand

The Project Site is currently developed with an approximate 23,882 square foot Sheriff's Station building. Although the existing building is currently vacant and demands no water use, the building has been used in the recent past as an interim facility for the Public Library while the Library building was under renovation. Additionally, there are no restrictions that prevent the building from being used or operated in the near future. Thus, for informational purposes, the historic water demand of the current facility is identified in Table 4.12-3, Historic Water Demand. As shown in Table 4.12-3, the existing potential water demand at the Project Site, if the existing building were to be occupied, is estimated to be approximately 5,732 gallons per day (gpd). However, as the former Sheriff's Station building is currently vacant, no water is currently being used on-site, with the exception of irrigation for landscaping.

**Table 4.12-3
Historic Water Demand**

Land Use	Size (sf)	Water Demand Rate ^a	Total (gpd)
Los Angeles County Sheriff's Station	23,882	240 gpd/1,000 sf	5,732
Total Existing			5,732
<i>Notes: sf = square feet; gpd = gallons per day</i> <i>^a County Sanitation Districts of Los Angeles County, 2002. Water demand rates assumed to be 120% of wastewater generation rates.</i> <i>Source: Parker Environmental Consultants 2014.</i>			

3. ENVIRONMENTAL IMPACTS

(a) Thresholds of Significance

The City of Malibu General Plan EIR considers the impacts created by the Proposed Project as being potentially significant if implementation would:

- Result in an increased demand for water services which exceeds the existing supply or capacity of the service provider's facilities, or
- Alter the demand for public services causing increased costs or service delivery limitations.

The CEQA Guidelines (Appendix G) identifies applicable criteria for determining whether a project's impacts are considered to have a significant effect on the environment. A project is considered to create a significant impact if:

- It would 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.

(b) Project Impacts

The Proposed Project includes the proposed demolition of the existing former Sheriff's Station building, and the construction of a new 2-story above-grade, approximately 25,310 square foot educational facility including an approximately 5,640 square foot Community Sheriff's Substation and Emergency Operations and Planning Center on the ground floor. The Proposed Project would result in a net increase of 1,428 square feet of gross floor area as compared to the size of the existing Sheriff's Station building. One of the Project's stated Project Objectives is to achieve the successful sustainable building standards of Santa Monica College by constructing a LEED certified structure that promotes efficiencies in water and energy use. The proposed structure has been designed to achieve LEED certification for institutional land uses.

As noted in Section 4.7, Hydrology and Water Quality, the Proposed Project will be required to comply with all applicable City and County Low/Impact Development/water quality requirements (see Mitigation Measure WQ-1 in Section 4.7, Hydrology/Water Quality). As shown in Table 4.12-4 the proposed net increase in water demand for the Proposed Project is estimated to be approximately 10,115 gpd. In order to present a conservative analysis, water demand is assumed to be 120 percent of the wastewater generated for a given land use. Conventional methodologies generally use water factors reflecting a 10 percent increase over wastewater rates.

**Table 4.12-4
Proposed Project Estimated Water Demand**

Land Use	Size (square feet)	Water Demand Rate ^[a]	Total (gpd)
Educational Facility	19,670	390 gpd/1,000 sf	7,671
Los Angeles County Sheriff's Station	5,640	240 gpd/1,000 sf	1,354
Landscaping	34,354	31.73 / 1,000 sf ^[b]	1,090
Total			10,115
<i>Notes: sf = square feet; gpd= gallons per day</i> ^[a] County Sanitation Districts of Los Angeles County, 2002. Water demand rates assumed to be 120% of wastewater generation rates. ^[b] Landscape irrigation demands are approximate and were based on the Estimated Total Water Use (ETWU) formula provided in the City of Los Angeles Water Efficient Landscape Ordinance. Source: Parker Environmental Consultants, 2014.			

A metered domestic water service provided from the local utility connection will serve the Proposed Project. The water main size is anticipated to be 2-1/2". A water flow test from LADPW was received on December 18, 2012 with the result of a static pressure of 92 pounds per square inch (psi) and a residual pressure of 84 psi at 1,088 gallons per minute (gpm). This pressure reading is adequate for the proposed building and a domestic water booster pump will not be required. A strainer and pressure-reducing valve assembly will be provided on the incoming water service.²³ Should any additional water system facilities

²³ Santa Monica College, Malibu Campus Malibu Center Mechanical, Electrical and Plumbing Schematic Design Narrative, Glumac, December 2012.

or upgrades be identified at the time of construction to meet the requirements of the County/City Engineer and the County Fire Chief, they will be completed at the expense of the Applicant and in consultation with Water District 29 and the Fire Department. The Applicant will also be required to pay appropriate connection fees, including meter fees, capital and local improvement charges, and financially participate in the Civic Center Infrastructure Improvement Project prior to approval of water plans, start of construction, and installation of any additional permanent water service.²⁴

Water efficiency will be a major consideration as well as maintenance in the selection of all plumbing fixtures, with low-flush water closets (1.28 gpf), low-flush urinals (0.125 gpf), low-flow lavatories (0.5 gpm), and sinks (2.0 gpm). Lavatories, water closets, urinals, and electric water coolers stations shall be specified to be ADA compliant. Hose bibs will be provided in each restroom, on the roof, and along the exterior of the building. Groups of fixtures on each floor will be provided with isolation valves behind access panels for ease of maintenance. Each plumbing fixture will also be provided with individual isolation valves (fixture stops) for maintenance purposes.²⁵ As such, impacts associated with a net increase in water demand would be less than significant.

(c) Cumulative Impacts

Implementation of the Proposed Project in conjunction with the related projects would further increase the demand for water. As shown in Table 4.12-5, the total water demand by the related projects and the Proposed Project would be approximately 387,890 gpd. Implementation of the WSMP would account for future demand needs through year 2035. To the extent the the Proposed Project and related projects are consistent with the existing zoning and general plan land use designations and anticipated growth rates for the region, they would be accounted for in the WSMP. The proposed use of the Proposed Project is consistent with the underlying zoning and general plan land use designation and would not exceed the planned density for the Project Site. While the Project would be able to obtain potable water, the additional demand from the cumulative development within the Waterworks District 29 service area has the potential to increase the demand that could exceed the cumulative capacity of the District's potable water supply and water supply infrastructure. Increased use of recycled water, particularly through implementation of the City's proposed Wastewater Treatment Facility, could reduce the demand for sources of potable water required by individual developments; however, a substantial increase in cumulative development and associated demand would not exceed the long-term availability existing water supplies. Therefore, cumulative impacts associated with water demand would be less than significant.

²⁴ *Written correspondence between Gail Farber, Director of Public Works, County of Los Angeles Department of Public Works, and Jim Thoresen, City Manager, City of Malibu, dated October 2013.*

²⁵ *Ibid.*

**Table 4.12-5
Projected Cumulative Water Demand**

Land Use	Size	Unit	Demand Rate ^a	Total Water Consumed (Gallons/Day)
Retail ^b	232,629	sf	390 (gallons/1,000 sf/day)	90,725
Hotel	146	rooms	150 (gallons/room/day)	21,900
Office ^c	107,106	sf	240 (gallons/1,000 sf/day)	25,705
Single-Family Residential ^d	108	du	312 (gallons/du/day)	33,696
Restaurant ^e	880	seat	36 (gallons/seat/day)	31,680
Hospital ^f	50	bed	90 (gal/bed/day)	4,500
University Campus ^g	394,137	sf	390 (gallons/1,000 sf/day)	153,713
Sport Fields ^h	160,000	sf	0 (gallons/sf/day)	0
Fitness Facility ⁱ	5,000	sf	0.3 (gallons/sf/day)	1,500
Spa	20,925	sf	0.96 (gallons/sf/day)	20,088
Related Projects Total:				383,507
Proposed Project Net Total:				4,383
Cumulative Total:				387,890
Proposed Project Percent of Cumulative:				1.13%

*Notes: sf = square feet; du = dwelling unit
Uses listed are estimated by the closest type of use available in the table.
^a County Sanitation Districts of Los Angeles County, 2002. Water demand rates assumed to be 120% of wastewater generation rates.
^b All of Trancas Country Market and Malibu Sycamore Village land uses are included in retail.
^c Includes office, administration building, and fire station.
^d For a conservative analysis, all dwelling units are analyzed as single-family homes.
^e Assumes that 2/3 of the restaurant floor area is dedicated to seating and 1/3 of the restaurant floor area is dedicated to the kitchen (19,804 sf * (2/3) = 13,203 sf dedicated to seating; 13,203 sf / 15 (sf per seat) = 880 seats)
^f Assumes 100 sf per bed.
^g For a conservative analysis, the commercial generation rate was used for the Pepperdine Campus Life Project.
^h The water demand rate for golf course (0 gal/sf/day) was used.
ⁱ Assumes 50 sf per member.*

Source: Parker Environmental Consultants, 2014.

4. MITIGATION MEASURES

- PU-4 Prior to the issuance of a building permit, the Applicant shall pay any applicable and lawful fees adopted by the City and generally and uniformly imposed by the City's Environmental Sustainability Department and/or Public Works Department for construction of new water supply and distribution facilities.
- PU-5 Automatic sprinkler systems shall be set to irrigate landscaping during early morning hours or during the evening to reduce water loss from evaporation. Care must be taken to reset sprinklers to water less often in cooler months and during the rainfall season to avoid wasting water by excessive landscape irrigation.
- PU-6 Selection of native, drought-tolerant, low water consuming plant varieties shall be used to reduce potable irrigation water demand to the maximum extent feasible.

- PU-7 Best Management Practices (BMP's) for water conservation shall be used within buildings to reduce wastewater generation/water use.
- PU-8 The Applicant shall install high-efficiency toilets (maximum 1.28 gpf), including dual-flush water closets, and high-efficiency urinals (maximum 0.5 gpf), including no-flush or waterless urinals, in all restrooms as appropriate.
- PU-9 The Applicant shall install restroom faucets with a maximum flow rate of 1.5 gallons per minute.
- PU-10 A separate water meter (or submeter), flow sensor, and master valve shutoff shall be installed for the proposed new building to ensure a separate connection from the library building is maintained.

5. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Following the implementation of the above listed mitigation measures, any potentially significant impacts to water services would be mitigated to a less than significant level.

4. ENVIRONMENTAL IMPACT ANALYSIS
12. PUBLIC UTILITIES
3. ENERGY

1. INTRODUCTION

This section analyzes the Proposed Project’s potential environmental impacts on public utilities. The analysis of utility impacts focuses upon the relationship between anticipated energy demands and the ability of the local utility service providers to accommodate the Proposed Project’s anticipated demands for electricity and natural gas. Capacity relates to the existing or planned capacity of infrastructure to service current and future utility needs. The analysis below establishes existing baseline energy use and describes the existing utilities serving the Project Site. It then calculates the Proposed Project’s anticipated energy demands and evaluates that data in comparison to the utility provider’s ability to accommodate that demand. In addition to demand, the analysis also addresses the Proposed Project’s sustainability features aimed at conserving energy pursuant to the Cal Green Building Codes and regional and local policies for the conservation of energy resources.

2. ENVIRONMENTAL SETTING

(a) Electricity

(1) Regulatory Setting

Energy demand from new buildings in California is regulated by the State Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations. The efficiency standards apply to new construction of both residential and non-residential buildings and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local and State building permit process. Local government agencies may adopt and enforce energy standards for new buildings, provided that these standards meet or exceed those provided in Title 24 guidelines. Examples of these guidelines are listed below:

- Roofing products installed in construction to take compliance credit for reflectance and emittance shall have a clear packaging label that lists the reflectance and emittance tested in accordance with ASTM Standards.
- Service water-heating systems of equipment must be equipped with automatic temperature controls capable of adjusting for the intended use.
- All exterior lighting of over 100 watts attached to buildings with air conditioning systems shall have source efficacy of at least 60 lumens per watt or be controlled by a motion sensor.²⁶

²⁶ 2001 Energy Efficiency Standards for Residential and Nonresidential Buildings, California Energy Commission, Effective June 1, 2001.

(2) Southern California Edison Company (SCE)

SCE currently provides electrical service to the City of Malibu. Southern California Edison (SCE) is one of the largest electric utilities in California, serving more than 14 million people in a 50,000 square-mile area of central, coastal and Southern California, excluding the City of Los Angeles and certain other cities. Based in Rosemead, California, the utility has been providing electric service in the region for more than 120 years. SCE's service territory includes more than 180 cities.²⁷

(3) Existing Electricity Demand

The Project Site is currently developed with an approximate 23,882 square foot Sheriff's Station building. Although the existing building is currently vacant and demands no energy use, the building has been used in the recent past as an interim facility for the Public Library while the Library building was under renovation. Additionally, there are no restrictions that prevent the building from being used or operated in the near future. The historic electricity demand of the current facility is based on the size of the facility as identified in Table 4.12-6, Historic Electricity Demand. As shown in Table 4.12-6, the potential energy demand at the Project Site would be approximately 309,272 kilowatt hours per year (kWh/yr) if the existing building were to be occupied. However, since the former Sheriff's Station is currently vacant, the existing building on the Project Site demands no energy use.

**Table 4.12-6
Historic Electricity Demand**

Land Use	Size (sf)	Energy Demand Rate (kWh/sf/year) ^a	Total (kWh/year)
Los Angeles County Sheriff's Station	23,882	12.95	309,272
Total Existing			309,272
<i>Notes: sf = square feet; kWh = kilowatt hours</i> <i>^a Electricity demand rate provided by South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993.</i> <i>Source: Parker Environmental Consultants, 2013.</i>			

(b) Natural Gas

(1) Regional Setting

(2) The Southern California Gas Company

The Southern California Gas Company (The Gas Company) provides natural gas service to the City of Malibu through gas mains that run under the streets. Natural gas service for new development projects must be provided in accordance with The Gas Company's policies and extension rules on file with the

²⁷ Edison International, Southern California Edison, from website: <http://www.edison.com/ourcompany/sce.asp>, accessed December 2013.

California Public Utilities Commission (PUC) at the time contractual agreements are made. The availability of natural gas is based upon present conditions of gas supply and regulatory policies. As a public utility, the Gas Company is under the jurisdiction of the PUC, but can also be affected by actions of federal regulatory agencies. Should these agencies take any action which affects gas supply or the conditions under which service is available, gas service would be provided in accordance with those revised conditions.

(3) Existing Natural Gas Demand

As discussed above, the Project Site is currently developed with an approximate 23,882 square foot Sheriff's Station building. Table 4.12-7 below, shows that the historic natural gas demand for the existing building is approximately 47,764 cubic feet per month. However, since the former Sheriff's Station is currently vacant, the existing building on the Project Site demands no natural gas use.

**Table 4.12-7
Historic Natural Gas Demand**

Land Use	Size (sf)	Natural Gas Demand Rate (cf/sf/month)^a	Total (cf/month)
Los Angeles County Sheriff's Station	23,882	2	47,764
Total Existing			47,764
<i>Notes: sf = square feet; cf = cubic feet</i> <i>^a Natural gas generation rate provided by South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993.</i> <i>Source: Parker Environmental Consultants, 2013.</i>			

3. ENVIRONMENTAL IMPACTS

(a) Thresholds of Significance

The City of Malibu General Plan EIR considers impacts as being potentially significant if implementation of a project would:

- Result in activities which use large amounts of electricity or natural gas in a wasteful manner, or
- Result in an increased demand for electricity or natural gas which exceeds either the existing supply or capacity of the infrastructure (or financially feasible infrastructure that could be developed) required to service additional demand and/or equipment (electric lines and substations, etc), or

- Alter the nature of demand for energy services causing increased costs or service delivery limitations.

(b) Project Impacts

(1) Construction Impacts

During the construction period, temporary service outages may result in the surrounding area as construction workers upgrade and extend the necessary infrastructure to service the Project Site. Such temporary disruptions in service are generally planned in advance to avoid peak demand times, however, inadvertent or unexpected periodic electricity outages may occur. Due to the temporary and intermittent nature of such outages, such impacts are considered less than significant.

(2) Operation

(1) Electricity

The Proposed Project includes the proposed demolition of the existing former Sheriff's Station building, and the construction of a new 2-story above-grade, approximately 25,310 square foot educational facility including an approximately 5,640 square foot Community Sheriff's Substation and Emergency Operations and Planning Center on the ground floor. The Proposed Project would result in a net increase of 1,428 square feet of gross floor area as compared to the size of the existing Sheriff's Station building. One of the Project's stated Project Objectives is to achieve the successful sustainable building standards of Santa Monica College by constructing a LEED certified structure that promotes efficiencies in water and energy use. The proposed structure has been designed to achieve LEED certification for institutional land uses.

As shown in Table 4.12-8, the Proposed Project would generate a demand for 300,227 kWh/year. Electricity demand associated with the Proposed Project was calculated using generation factors based on land use classifications in accordance with the SCAQMD's CEQA Air Quality Handbook. This estimate is anticipated to be lowered after accounting for compliance with the CAL Green Code and additional sustainability features that are proposed to meet LEED accountability goals.

A new 600A, 480Y/277V, 3 phase, 4 wire service is proposed to be provided from SCE. There is an existing underground high voltage line that has sufficient capacity to serve the new building. A transformer slab box will be provided on-site with underground conduit infrastructure per SCE requirements and serve the building main switchboard located in the main electrical room. The new SCE meter and main breaker shall be provided in the main switchboard. The new service will be coordinated with SCE and conform to all SCE requirements for installation as well as existing site conditions. SCE shall be contacted during the next phase to begin the application process.²⁸ As the energy demands for the Proposed Project will be accommodated by the SCE, impacts would be less than significant.

²⁸ *Santa Monica College, Malibu Campus Malibu Center Mechanical, Electrical and Plumbing Schematic Design Narrative, Glumac, December 2012.*

**Table 4.12-8
Proposed Project Electricity Demand**

Land Use	Size (GSF)	Energy Demand Rate (kWh/sf/year)^a	Total (kWh/year)
Educational Facility	19,670	11.55	227,189
Los Angeles County Sheriff's Station	5,640	12.95	73,038
Total			300,227
<i>Notes: sf = square feet; kWh = kilowatt hours</i> <i>^a Electricity demand rate provided by South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993.</i> <i>Source: Parker Environmental Consultants, 2014.</i>			

(2) Natural Gas

Natural gas demand associated with the Proposed Project was calculated using generation factors based on land use. Natural gas will be provided for the heating hot water boilers, domestic gas water heater, and all other gas requiring equipment & appliances.²⁹ As shown in Table 4.12-9, the Proposed Project is anticipated to result in an increased demand of approximately 70,290 cubic feet per month of natural gas as compared to existing conditions. A new natural gas system will be provided. A shutoff, gas meter, and earthquake valve will be located outside the building. A pressure regulator will reduce incoming gas pressure to approximately 8" WC. Further determinations about necessary infrastructure improvements may be made upon the submission to The Gas Company of "final plans" for the Proposed Project. At that time, The Gas Company would be able to make a final determination on natural gas service to the Proposed Project. The Proposed Project would have a less than significant impact upon natural gas services.

**Table 4.12-9
Proposed Project Natural Gas Demand**

Land Use	Size (GSF)	Natural Gas Demand Rate (cf/sf/month)^a	Total (cf/month)
Educational Facility	19,670	3	59,010
Los Angeles County Sheriff's Station	5,640	2	11,280
Total			70,290
<i>Notes: sf = square feet; cf = cubic feet</i> <i>^a Natural gas generation rate provided by South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993.</i> <i>Source: Parker Environmental Consultants, 2014.</i>			

²⁹ Santa Monica College, Malibu Campus Malibu Center Mechanical, Electrical and Plumbing Schematic Design Narrative, Glumac, December 2012.

(c) Cumulative Impacts
(1) Electricity

Implementation of the Proposed Project in conjunction with the related projects would further increase the demand for electricity service. As shown in Table 4.12-10, the total electricity consumed by the related projects and the Proposed Project would be approximately 13,604,831 kilowatt hours per year. Although the cumulative impact of the identified Related Projects may require the installation of additional electrical distribution facilities, service availability, and thus the extent of any potential locally occurring cumulative impacts on utility service, would necessarily be determined through the environmental review process for each individual project. The construction of any power distribution facilities required in association with any related project may cause limited local short-term impacts in the forms of unavoidable noise, air pollution, and traffic congestion during construction. Even so, it is not expected that the development of these projects would represent a level of use of regional energy resources that could result in a significantly adverse cumulative impact.

Table 4.12-10
Projected Cumulative Electricity Demand

Land Use	Size	Unit	Demand Rate (KW-hour/unit/year) ^a	Total Electricity Demand (KW-Hours/Year)
Retail ^{b,c}	258,554	sf	13.55 (KW-Hour/sf/year)	3,503,407
Hotel ^d	83,950	sf	9.95 (KW-Hour/sf/year)	835,302
Office ^e	107,106	sf	12.95 (KW-Hour/sf/year)	1,387,023
Single-Family Residential	108	du	5,626.5 (KW-Hour/du/year)	607,662
Restaurant	19,804	sf	47.45 (KW-Hour/sf/year)	939,700
Hospital	5,000	sf	21.7 (KW-Hour/sf/year)	108,500
University Campus	394,137	sf	11.55 (KW-Hour/sf/year)	4,552,282
Sport Fields ^f	160,000	sf	10.5 (KW-Hour/sf/year)	1,680,000
Related Projects Total:				13,613,876
Proposed Project Net Total:				-9,045
Cumulative Total:				13,604,831
Proposed Project Percent of Cumulative:				-0.07%
<i>Notes: sf = square feet; KW = kilowatt; du = dwelling unit</i> ^a Electricity demand rate provided by South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993. ^b Includes retail, shopping center, fitness facility, and spa. ^c All of Trancas Country Market and Malibu Sycamore Village land uses are included in retail. ^d Assumes 575 sf per hotel room. ^e Includes office, administration building, and fire station. ^f Miscellaneous electricity demand rate was used. Source: Parker Environmental Consultants, 2014.				

(b) Natural Gas

Implementation of the Proposed Project in conjunction with the related projects would further increase the demand for natural gas. As shown in Table 4.12-11, development and implementation of the related projects within the study area plus the Proposed Project would result in the demand of approximately 3,489,656 cf of natural gas per month. Although the cumulative impact of the identified related projects

may require the installation of additional natural gas distribution facilities, service availability, and thus the extent of any potential locally occurring cumulative impacts on utility service, would necessarily be determined through the environmental review process for each individual project. The construction of any distribution facilities required in association with any related project may cause limited local short-term impacts in the forms of unavoidable noise, air pollution, and traffic congestion during construction. Even so, it is not expected that the development of these projects would represent a level of use of regional energy resources that could result in a significantly adverse cumulative impact.

Table 4.12-11
Projected Cumulative Natural Gas Demand

Land Use	Size	Unit	Demand Rate (cubic feet/unit/month) ^a	Total Natural Gas Demand (cubic feet/month)
Retail ^{b c}	438,358	sf	3 (cubic feet/sf/month)	1,315,074
Hotel ^d	83,950	sf	5 (cubic feet/sf/month)	419,750
Office ^e	506,243	sf	2 (cubic feet/sf/month)	1,012,486
Single-Family Residential	108	du	6,665 (cubic feet/sf/month)	719,820
Related Projects Total:				3,467,130
Proposed Project Net Total:				22,526
Cumulative Total:				3,489,656
Proposed Project Percent of Cumulative:				0.65%
<p><i>Notes: sf = square feet; cf = cubic feet, du = dwelling unit</i> ^a Natural gas generation rate provided by South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993. ^b Includes retail, shopping center, fitness facility, spa, restaurant, and sport fields. ^c All of Trancas Country Market and Malibu Sycamore Village land uses are included in retail. ^d Assumes 575 sf per hotel room. ^e Includes office, administration building, fire station, university campus, and hospital.</p> <p><i>Source: Parker Environmental Consultants, 2014.</i></p>				

4. MITIGATION MEASURES

As stated above, the Proposed Project would not result in any significant impacts with respect to energy resources or infrastructure. As such, no mitigation measures are required.