Section 5.18 WASTEWATER





5.18 WASTEWATER

This section analyzes project-related impacts to wastewater conveyance and treatment facilities. The analysis presented in this section is based on information and conclusions contained in the *Sewer Study* prepared for the proposed project by DCA Civil Engineering Group on April 25, 2008,¹ and included as Appendix M. The purpose of the *Sewer Study* is to evaluate the existing capacity of wastewater system and determine if adequate capacity is available to serve the proposed project. Additionally, information obtained from correspondence with the Sanitation Districts of Los Angeles County (LACSD) is incorporated into this section.

5.18.1 ENVIRONMENTAL SETTING

WASTEWATER GENERATION

Based on the LACSD wastewater generation factors, the existing Henry Mayo Newhall Memorial Hospital currently generates 101,468 gallons per day (gpd) of wastewater as described in <u>Table 5.18-1</u>, <u>Existing Wastewater Generation</u>.

Existing Uses	LACSD Generation Factor	Existing Units	Wastewater Generation	
Main Hospital	319 gpd/bed	121 beds	38,599 gpd	
Nursing Pavilion	319 gpd/bed	100 beds	31,900 gpd	
Medical Office Building	300 gpd/1,000 s.f.	96,160 s.f.	28,848 gpd	
Support Facilities	25 gpd/1,000 s.f.	20,825 s.f.	521 gpd	
Foundation & Administrative Office Building	200 gpd/1,000 s.f.	8,000 s.f.	1,600 gpd	
TOTAL			101,468 gpd	
s.f. = square feet Generation Factor Source: Telephone conversation with Ruth Frazen, Engineering Technician, LACSD, September 20, 2007.				

Table 5.18-1 Existing Wastewater Generation

The *Sewer Study* indicates existing wastewater flow generated from the project site is well below 50 percent of the capacity for all of the existing sewer mains between upstream and the existing trunk sewer lines that serve the project site.

WASTEWATER TREATMENT

Most wastewater generated within the Santa Clarita Valley is treated at two existing water reclamation plants (WRPs), which are operated by the LACSD. These two treatment facilities, the Saugus WRP located at 26200 Springbrook Avenue in Saugus, and the Valencia WRP located at 28185 The Old Road in Valencia, have been interconnected to form a regional treatment system known as the Santa Clarita Valley Joint Sewerage System (SCVJSS), operated by the Santa Clarita Valley Sanitation District (SCVSD). Formerly two separate Districts, Districts 26 and 32, the SCVSD is a consolidated District intended to serve the entire Santa Clarita Valley. The relationship

¹ DCA Civil Engineering Group. City of Santa Clarita Master Sewer Study, Henry Mayo Newhall Memorial Hospital. April 25, 2008.

between the Santa Clarita Valley's two WRPs was established through a joint powers agreement that created the regional treatment system and permitted the Valencia WRP to accept flows that exceed the capacity of the Saugus WRP. These two facilities provide primary, secondary, and tertiary treatment. The SCVJSS has a combined permitted and design capacity of 28.1 million gallons per day (mgd), and currently treats an average daily flow of 21.0 mgd.^{2,3}

The mechanism used to fund expansion projects is the LACSD's Connection Fee Program. Prior to the connection of the local sewer network to the LACSD system, all new users are required to pay their fair share of the LACSD sewerage system expansion through a connection fee. The fees fund treatment capacity expansion and trunk lines, while on-site sewer mains are the responsibility of the developer. The rate at which connections are made and revenues accumulate drives the rate at which periodic expansions of the system are designed and built. However, connection permits are not issued unless it is demonstrated that sufficient capacity exists to serve proposed development. Therefore, the expansion of LACSD facilities may be immediate if adequate capacity does not exist to serve new users, or the expansion may occur in the future if it is determined that there is adequate capacity to serve new users, but inadequate capacity to serve future development within the tributary area(s) of the affected collection/treatment facilities, thereby necessitating future system expansions. In the latter case, the connection fees paid by new users are deposited into a restricted Capital Improvement Fund (CIF) used solely to capitalize the future expansion of affected system facilities. The cyclical process of building phased expansions and collecting connection fees can continue indefinitely. The ultimate capacity of the facilities is 34.1 mgd, which is sufficient to meet demand of total flows projected from the Santa Clarita Valley in 2015.⁴ The LACSD does not expect to exceed a daily capacity of 34.1 mgd because connection permits will not be issued that would exceed this amount.

Although the collection of connection fees parallels actual growth trends, adequate wastewater facilities must be in service before anticipated flows materialize. Thus, the LACSD utilizes long-term financing (e.g., State infrastructure loans) to facilitate construction with sufficient lead-time to meet the flow demands of the system as development occurs.⁵

LACSD Facilities Plan

The LACSD has prepared a Final 2015 Santa Clarita Valley Joint Sewerage System Facilities System Facilities Plan (Facilities Plan) with a horizon year of 2015 for the SCVJSS and a Draft EIR. The Facilities Plan estimates future wastewater generation for the probable future service area of the SCVSD in order to anticipate future treatment capacity and wastewater conveyance needs. According to LACSD estimates, total flows projected from the Santa Clarita Valley in 2015, exclusive of Newhall Ranch, would be 34.1 mgd. This projection is based upon SCAG 1996 population projections, exclusive of Newhall Ranch (the Newhall Ranch development will have its own sewer treatment facility and will not require usage of the Saugus or Valencia WRPs). As a result of this finding, LACSD proposed to incrementally expand the treatment facilities to meet future needs in two expansions to a total of 34.1 mgd. This two-phase expansion plan would increase treatment capacity by approximately 15 mgd. The first phase, which was completed in 2003,

² Telephone conversation with Ruth Frazen, Engineering Technician, LACSD, September 18, 2007

³ Correspondence received from Ruth Frazen, Engineering Technician, LACSD, dated July 1, 2008.

⁴ Final 2015 Santa Clarita Valley Joint Sewerage System Facilities Plan, LACSD, January 1998.

⁵ Ibid.



expanded treatment capacity by approximately 9 mgd (approximately a 47 percent increase) to 28.1 mgd. This expansion will meet the expected wastewater treatment demand through 2010. The second phase would increase treatment capacity by an additional 6 mgd. Completion of the second phase is anticipated in 2010, but could be delayed should the demand for wastewater service decrease in comparison to the demand assumptions utilized within the *Facilities Plan*.⁶

Wastewater Collection System

The LACSD wastewater collection system is composed of service connections that tie into the local collection network. This local network, composed of secondary and primary collectors, flows into the LACSD's trunk wastewater mains and the water reclamation plants. The LACSD maintains the wastewater trunk mains that lead to the two reclamation plants, and the local collection network is maintained by the Los Angeles County Department of Public Works (Sewer Maintenance) for the City of Santa Clarita. <u>Exhibit 5.18-1</u>, <u>Santa Clarita Valley Sanitation District Current Boundary and Sphere of Influence</u>, referenced from LACSD's Facilities Plan and EIR, shows the location of the SCVSD's spheres of influence and the Saugus and Valencia WRPs, which accept flows from the project area.

The project site utilizes an on-site wastewater collection system to convey wastewater flow from the site. Local conveyance facilities on-site consist of 8-inch, 10-inch, and 12-inch pipelines. An 8- inch sewer main extends from the northwest boundary of the project site and connects to a 10-inch private sewer main located at Ramillo Way and Dalgo Drive. The on-site 10-inch sewer main is connected at the upstream end, which begins approximately nine feet northerly of the southwesterly corner of the project site, and drains to the residential tracts west of the site. The wastewater flows northeast along the project boundary until it connects to an off-site 12-inch sewer main, which is maintained by the Los Angeles County Department of Public Works Consolidated Sewer Maintenance District. Wastewater flows from the 12-inch sewer main to a manhole located 70 feet northwesterly of the intersection of McBean Parkway and Avenida Navarre. The manhole is the junction where the 12-inch sewer main connects to the LACSD's 24-inch trunk sewer located in the southbound side of McBean Parkway and flows from Orchard Village Road northerly along McBean Parkway to the manhole near Avendia Navarre. The manhole outlets and flows northerly in to LACSD's 18-inch Valencia trunk sewer. The Valencia trunk sewer has a design capacity of 6.6 mgd and conveyed a peak flow of 5.1 mgd when last measured in 2003.^{7,8}

The City Department of Public Works requires that new development wastewater systems connect to the LACSD's existing sanitary wastewater system. The City's Department of Public Works is the agency responsible for local wastewater in the City of Santa Clarita, and any developer constructing a new wastewater line would have to coordinate the construction and dedication of any such wastewater line with the City's Department of Public Works for future operation and maintenance. It would then be the responsibility of the LACSD to upgrade the wastewater collection and treatment systems by providing relief for existing trunk lines nearing capacity and expanding treatment plants to provide sanitation service to outlying areas.

⁶ Telephone conversation with Ruth Frazen, Engineering Technician, LACSD, September 18, 2007.

⁷ Ibid.

⁸ Correspondence from Ruth Frazen, Engineering Technician, LACSD, dated July 1, 2008.



Source: County Sanitation Districts of Los Angeles County.

NOT TO SCALE



REVISED ENVIRONMENTAL IMPACT REPORT HENRY MAYO NEWHALL MEMORIAL HOSPITAL MASTER PLAN

Santa Clarita Valley Sanitation District Current Boundary and Sphere of Influence

06/08 • JN 10-103970



5.18.2 SIGNIFICANCE THRESHOLD CRITERIA

The City of Santa Clarita Local CEQA Guidelines (Resolution 05-38) adopted on April 26, 2005, as well as the City's General Plan and Municipal Code serve as the basis for identifying thresholds determining the significance of the environmental effects of a projects. Where thresholds are not specifically identified, the Initial Study checklist contained in Appendix A of this EIR relating to wastewater conveyance and treatment facilities have been utilized to formulate additional significance criteria in this section. Accordingly, a project may create a significant environmental impact if the following occurs:

• Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

The proposed HMNHMH Master Plan has been evaluated based on this standard. Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.18.3 IMPACTS AND MITIGATION MEASURES

WASTEWATER CONVEYANCE AND TREATMENT

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: Components of the proposed project requiring wastewater service include the Inpatient Building (125,363 square feet of hospital uses) which includes 120 beds, an increase of 18 hospital beds within the existing Main Hospital, an increase of nine hospital beds within the existing Nursing Pavilion, 200,000 square feet of medical office buildings (MOB), and a new 10,000 square foot Central Plant. The proposed project would also result in a decrease of 8,000 square feet of foundation/administrative office building space. According to the LACSD, the proposed project would result in additional wastewater generation (over existing conditions) as described in <u>Table 5.18-2, Project Wastewater Generation</u>.

Proposed Uses	LACSD Generation Factor	Proposed Units	Wastewater Generation	
Inpatient Building (New)	319 gpd/bed	120 new beds	38,280 gpd	
Main Hospital (Existing)	319 gpd/bed	18 new beds	5,742 pd	
Nursing Pavilion (Existing)	319 gpd/bed	9 new beds	2,871 gpd	
Medical Office Building	300 gpd/1,000 s.f.	200,000 s.f.	60,000 gpd	
Central Plant	25 gpd/1,000 s.f.	10,000 s.f.	250 gpd	
Foundation & Administrative Office Building	200 gpd/1,000 s.f.	-8,000 s.f.	-1,600 gpd	
TOTAL			105,543 gpd	
s.f. = square feet Generation Factor Source: Telephone conversation with Ruth Frazen, Engineering Technician, LACSD, September 20, 2007.				

Table 5.18-2 Project Wastewater Generation



The total on-site wastewater generated would be 207,011 gallons per day, which accounts for both existing on-site uses (refer to <u>*Table 5.18-1*</u>) and proposed on-site uses (refer to <u>*Table 5.18-1*</u>).

As stated above, the SCVJSS has a combined permitted and design capacity of 28.1 million gallons per day (mgd), and currently treats an average daily flow of 21.0 mgd.^{9, 10} The proposed project's estimated 105,543 gpd of wastewater generation over existing conditions represents approximately 1.5 percent of the LACSD's remaining treatment capacity of 7.1 mgd.

The LACSD, in accordance with the California Health and Safety Code, would impose a fee upon the project applicant for a connection to the LACSD's sewerage system. This standard connection fee would be utilized to construct incremental expansion of the sewerage system to accommodate the proposed project, which would mitigate wastewater impacts on LACSD's treatment and regional conveyance facilities.¹¹ Payment of the standard connection fee would be required prior to issuance of any connection permit.

The proposed project would require an Industrial Wastewater Discharge Permit from the LACSD. An Industrial Wastewater Discharge Permit is required for any facility that desires to discharge industrial wastewater into the LACSD sewerage system, under the LACSD's Wastewater Ordinance of 1972. The project applicant would be responsible for coordination with LACSD's Industrial Waste Section for review and approval of project documentation and issuance of the permit prior to construction.

A stated above, local wastewater conveyance facilities (i.e., pipelines conveying wastewater between the project site boundary and the LACSD's Valencia trunk sewer) are operated by the City of Santa Clarita (although they are maintained by the Los Angeles County Department of Public Works Consolidated Sewer Maintenance District). Local conveyance facilities include a 12-inch pipeline extending from the site boundary to the LACSD's Valencia trunk sewer within McBean Parkway.

As part of the standard project approval process, the City's Department of Public Works requires the project applicant to prepare a Sewer Area Study, which assists the City in determining potential project-related impacts upon local conveyance facilities. The City reviews the *Sewer Study* and approval of this report is required prior to review of project sewer plans. If it is determined that new or expanded facilities are required, the City would require the project applicant to either construct necessary facilities or pay in-lieu fees to offset wastewater demand.¹² The *Sewer Study* prepared for the proposed project indicates all of the existing sewer mains between upstream and the existing trunk sewer lines are below the ³/₄ full capacity, including the additional flow from the proposed project); thus, the existing system has sufficient capacity available to accommodate existing and proposed project generated wastewater flows.

The proposed project would not require or result in the construction of new wastewater treatment facilities or the expansion of existing facilities as there is sufficient capacity in existing infrastructure and facilities. Thus, less than significant impacts would occur in this regard.

⁹ Telephone conversation with Ruth Frazen, Engineering Technician, LACSD, September 18, 2007.

¹⁰ Correspondence from Ruth Frazen, Engineering Technician, LACSD, dated July 1, 2008.

¹¹ Telephone conversation with Ruth Frazen, Engineering Technician, LACSD, September 20, 2007.

¹² Telephone conversation with Carla Callahan, Engineering Technician, City of Santa Clarita , October 1, 2007.



Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

5.18.4 CUMULATIVE IMPACTS AND MITIGATION MEASURES

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: The proposed project, in conjunction with other related cumulative projects, would generate wastewater flows totaling approximately 3.6 mgd (refer to Appendix C for cumulative wastewater generation calculation table), which can be accommodated by the current remaining treatment capacity of 7.1 mgd. Although existing facilities are anticipated to accommodate cumulative demand, a second facility upgrade anticipated for completion in 2010 will be in place long before full project buildout and implementation of related projects. Facility capacity will increase to 34.1 mgd and, therefore, provide adequate capacity to handle cumulative demand. To ensure that adequate capacity exists at the time the proposed project begins operation, the LACSD utilizes growth projections for long-range planning purposes to ensure that wastewater service is in place before anticipated flows materialize. The LACSD utilizes long-term financing (e.g., State infrastructure loans) to facilitate expansion of facilities with sufficient lead-time to meet the flow demands of the system as development occurs.¹³ Standard connection fees would then be utilized to repay financing/loans associated with the cost of additional facilities.

All cumulative projects would require an Industrial Wastewater Discharge Permit from the LACSD. An Industrial Wastewater Discharge Permit is required for any facility that desires to discharge industrial wastewater into the LACSD sewerage system, under the LACSD's Wastewater Ordinance of 1972. Each project applicant would be responsible for coordination with LACSD's Industrial Waste Section for review and approval of project documentation and issuance of the permit prior to construction.

It is anticipated that, upon payment of applicable connection fees and compliance with the LACSD's permitting requirements, adequate capacity would be available on a cumulative basis. The LACSD's *Facilities Plan* accounts for projected growth and development within the Santa Clarita Valley, and outlines a specific method of providing sewerage service through 2015. The first phase of this two-phase program has already been constructed, and the second phase would be constructed when LACSD determines that forecast demand requires additional capacity. Cumulative impacts to wastewater facilities would be less than significant and would not result in an exceedance of the significance threshold criteria identified above.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

¹³ Telephone conversation with Ruth Frazen, Engineering Technician, LACSD, September 20, 2007.



5.18.5 SIGNIFICANT UNAVOIDABLE IMPACTS

Implementation of the proposed project would result in less than significant project and cumulative wastewater treatment and conveyance facility impacts without the imposition of mitigation measures. As such, no significant unavoidable impacts would result from implementation of the Henry Mayo Newhall Memorial Hospital Master Plan.