# M.2. WASTEWATER

## 1. INTRODUCTION

This section addresses the potential impacts of the project on the existing wastewater infrastructure and treatment facilities, and whether sufficient capacity is available to meet the projected wastewater generated by project development. Consistency with adopted goals and ordinances is also discussed. The following analysis is based on the analysis and conclusions contained in a Sewer Capacity Analysis performed for the proposed project in April 2010, as well as information provided by the Sanitation Districts of Los Angeles County (LACSD). The Sewer Capacity Analysis is included as Appendix L of this EIR.

## 2. ENVIRONMENTAL SETTING

### a. Regulatory Environment

#### (1) City of Long Beach Municipal Code

Title 15, Public Utilities, of the Long Beach Municipal Code (LBMC) includes seven chapters regulating wastewater line connections and the development of new wastewater facilities. Specifically, Chapter 15.01, *Sewers-Rules, Regulations and Charges*, establishes that the current edition of the rules, regulations and charges governing water and sewer service are to approved by the board of water commissioners. Chapter 15.08, Sewers-Permits, specifies that only employees of the water department are allowed to construct or alter a public sewer, a sewage pumping plant, a private sewer in a public street or a house connection or make a connection from a building sewer to a house connection unless a permit from the general manager has been provided. Chapter 15.16, Sewers-Industrial Waste and Wastewater, requires a permit for the release of any industrial waste into a mainline sewer. Chapter 15.20, Sewers-Use Regulations, prohibits the discharge of the following items into any public sewer in the City:

- Earth, sand, rocks, ashes, gravel, plaster, concrete, glass, metal filings or metal objects or other materials which will not be carried by the sewer stream or anything which may obstruct the flow of sewage in the sewer or any object which will cause clogging of a sewage pump or a sewage sludge pump;
- Any garbage which has not been first shredded so that each particle is not more than three eighths of an inch in any dimension or any garbage containing broken glass;
- Any solid or semisolid material such as garbage, trimmings, cuttings, offal, or other waste produced in the processing of meats, fruits, vegetables, foodstuffs or similar materials except garbage produced which meets the requirements of Chapters 15.04 through 15.28 and the rules, regulations and charges governing water and sewer service;
- Any volatile liquids or substances which can produce toxic or flammable atmospheres in the sewer;
- Any compounds which may produce strong odors in the sewer or sewage treatment plant;
- Any stormwater or runoff from any roof, yard, driveway or street;
- Any materials which will cause damage to any part of the sewer system or abnormal sulphide generation or abnormal maintenance or operation costs of any part of the sewer system or which

may cause any part of the sewer system to become a nuisance or a menace to public health or a hazard to workers or which will cause objectionable conditions at the final point of disposal of the sewage;

- Any liquid having a temperature in excess of one hundred twenty degrees Fahrenheit;
- Unpolluted water from refrigeration systems, air conditioning systems, industrial cooling systems, swimming pools or other unpolluted water from any origin except as authorized by the general manager; or
- Any radioactive waste which constitutes or may constitute a public health hazard or endanger workmen charged with the maintenance of public sewers.

In addition, Chapter 15.20 includes regulations regarding, building sewer lines across another lot; maintenance; existing sewers; backflow prevention; backflow noncompliance; septic tank abandonment; dumping contents of septic tanks or cesspools; opening manholes; damaging sewers; disposal of uncontaminated water; cellar and shower drainage; maintenance of facilities; and inspections. Finally, Chapters 15.24 and 15.28 includes regulations for installations and inspections, respectively.

Given the Project's location with the City of Long Beach, the above referenced sections of the LBMC are applicable to the proposed project.

## b. Physical Environment

### (1) Wastewater Treatment[1]

The LACSD is a partnership of 23 independent special districts that provides wastewater and solid waste services to the City. The LACSD serves approximately 5.7 million people in Los Angeles County and has a service area that covers approximately 820 square miles and encompasses 78 cities including unincorporated territory within the County. The LACSD constructs, operates, and maintains facilities to collect, treat, recycle, and dispose of wastewater and industrial wastes. Individual districts operate and maintain their own portions of the collection system and then local jurisdictions are responsible for the collection of wastewater through local sewers and the collection of solid waste. The LACSD's 1,400 miles of main trunk sewers, ten water reclamation plants (WRPs), and one ocean discharge facility (Joint Water Pollution Control Plant [JWPCP]) treat approximately 510 million gallons per day (mgd), 200 mgd of which are available for reuse.

Currently, a majority of the City's wastewater is delivered to the JWPCP that has a design capacity of 385 mgd and currently processes an average flow of approximately 322.7 mgd. The remaining portion of the City's wastewater is delivered to the Long Beach WRP, which provides treatment for approximately 25 mgd of wastewater. The total daily flow of wastewater in the City is 347.7 mgd with a capacity of 410 mgd.[2, 3]

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[1] *Sanitation Districts of Los Angeles County, "Who Are the Sanitation Districts?" (http://www.lacsd.org/about/default.asp), accessed December 2010.*

[2] *Sanitation Districts of Los Angeles County, "Joint Water Pollution Control Plant (JWPCP)" (http://www.lacsd.org/about/wastewater_facilities/jwpcp/default.asp), accessed December 2010.*

### (a) Joint Water Pollution Control Plant[4]

The JWPCP is located at 24501 S. Figueroa Street, Carson, California and serves a population of approximately 3.5 million people throughout Los Angeles County. The plant occupies approximately 420 acres to the east of the Harbor (110) Freeway. Approximately 200 of the 420 acres are used as buffer areas between the operational areas and surrounding residential neighbors. Buffer areas include the Wilmington Boys and Girls Club, a 17-acre fresh water marsh area, the Home Depot commercial complex, Kellogg Supply Inc., Color Spot nursery operations, and others.

The JWPCP is one of the largest wastewater treatment plants in the world and is the largest of the LACSD's wastewater treatment plants. The facility provides both primary and secondary treatment for approximately 300 mgd of wastewater. Solids collected in Primary Treatment and Secondary Treatment are processed in anaerobic digestion tanks where bacteria break down organic material and produce methane gas. After digestion, the solids are dewatered at Solids Processing and hauled off-site for use in composting and land application, or combined with municipal solid waste for co-disposal. Methane gas generated in the anaerobic digestion process is used to produce power and digester heating steam in a Total Energy Facility that utilizes gas turbines and waste-heat recovery steam generators. The on-site generation of electricity permits the JWPCP to produce most of its electricity. Prior to discharge, the treated wastewater is disinfected with hypochlorite and sent to the Pacific Ocean through a network of outfalls. These outfalls extend two miles off the Palos Verdes Peninsula to a depth of 200 feet.

### (b) Long Beach WRP[5]

The Long Beach WRP is located at 7400 E. Willow Street, Long Beach and serves a population of approximately 250,000 people. The Long Beach WRP occupies 17 acres west of the San Gabriel River (605) Freeway and provides primary, secondary, and tertiary treatment for 25 mgd of wastewater. Almost five mgd of the purified water is reused at over 40 reuse sites. Reuse includes landscape irrigation of schools, golf courses, parks, and greenbelts and the re-pressurization of oil-bearing strata.

### (c) Reclaimed Water Reuse[6]

Upstream WRPs provide a high quality source of reclaimed water that essentially meets drinking water standards and is reused at more than 570 sites throughout the county. However, flows received at the JWPCP are higher in salts making it less practical to reclaim and reuse. Uses of recycled water include industrial, commercial, and recreational applications; groundwater recharge; agriculture; and landscape, park, and golf course irrigation.

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[3] *Sanitation Districts of Los Angeles County, "Long Beach Water Reclamation Plant" (http://www.lacsd.org/about/wastewater_facilities/joint_outfall_system_water_reclamation_plants/long_beach.asp), accessed December 2010.*

[4] *Sanitation Districts of Los Angeles County, "Joint Water Pollution Control Plant (JWPCP)" (http://www.lacsd.org/about/wastewater_facilities/jwpcp/default.asp), accessed December 2010.*

[5] *Sanitation Districts of Los Angeles County, "Long Beach Water Reclamation Plant" (http://www.lacsd.org/about/wastewater_facilities/joint_outfall_system_water_reclamation_plants/long_beach.asp), accessed December 2010.*

[6] *Sanitation Districts of Los Angeles County, "Who Are the Sanitation Districts?" (http://www.lacsd.org/about/default.asp), accessed December 2010.*

### (d) Biosolids Management[7]

The LACSD's sewerage system produces a combined 500,000 wet tons per year of biosolids as a byproduct of wastewater treatment. At some of the plants, biosolids are digested producing methane that is converted to electricity or used for process heating. Excess electricity is supplied to the power grid, which helps meet the growing needs of Southern California. Biosolids are beneficially reused through a variety of management options: as a soil amendment for agriculture; in the manufacture of high-quality compost; and by injecting into a cement kiln to help reduce $NO_X$ emissions.

The LACSD's long-range plan also includes ownership of two state of the art composting sites. The Inland Empire Regional Composting Facility located in Rancho Cucamonga, CA, is an entirely enclosed composting facility, developed in a joint venture with the Inland Empire Utilities Agency. The Westlake Farms Co-Composting Facility, located in the Central Valley, will compost Districts' biosolids with the Central Valley's agricultural waste and green waste, and is scheduled to be operational in 2013.

## (2) Wastewater Collection[8]

The LACSD owns, operates, and maintains approximately 1,400 miles of sewers (ranging from eight to 144 inches in diameter) that convey approximately 500 mgd of wastewater to the 11 wastewater treatment plants.[9] Included in the LACSD's wastewater collection system are 52 active pumping plants located throughout Los Angeles County. The LACSD's service area includes sewer systems located within the Joint Outfall System (JOS), the Santa Clarita Valley, and the Antelope Valley. The City of Long Beach is located within the JOS, which includes seventeen of the LACSDs, which provides for operation and maintenance of a regional, interconnected system of facilities. The service area of the JOS encompasses 73 cities and unincorporated territory, and includes some areas within the City of Los Angeles and Orange and San Bernardino Counties. This system provides wastewater collection, treatment, reuse, and disposal for residential, commercial, and industrial users.

As noted in the Sewer Capacity Analysis performed for the proposed project (included in Appendix L of this EIR), the existing 12-inch diameter sewer line located in 2nd Street that currently serves the project site conveys an average of 0.70 cubic feet per second (cfs) of wastewater with a maximum depth of 7.08 inches. This is well within the maximum acceptable flow depth of 9.0 inches (75 percent of total pipe depth) for a 12-inch diameter pipeline.

## (3) Wastewater Generation

Based on standard sewage generation factors, as shown below in **Table IV.M.2-1**, *Existing Estimated Wastewater Generation*, the existing 240-room hotel generates an average flow of approximately 27,375 gallons per day (gpd) (0.042 cfs) of wastewater, and a peak wastewater flow of 46,538 gpd (0.072 cfs).

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7 *Sanitation Districts of Los Angeles County, "Who Are the Sanitation Districts?" (http://www.lacsd.org/ about/default.asp), accessed December 2010*

8 *Ibid.*

9 *Within the LACSD's service area, there are approximately 9,500 miles of sewers that are owned and operated by the cities and the County of Los Angeles that are tributary to the LACSD's wastewater collection system.*

**Table IV.M.2-1**

**Existing Estimated Wastewater Generation**

| Land Use | Quantity[a] | Sewer Generation Factor (gpd/unit)[b] | Average Flow (gpd) | Average Flow (cfs)[c] | Peak Flow[d] (gpd) | Peak Flow[d] (cfs)[c] |
|---|---|---|---|---|---|---|
| Hotel | 156 rooms | 130/room | 20,280 | 0.031 | 34,476 | 0.053 |
| Restaurant | 2,800 sf | 30/seat | 3,360 | 0.005 | 5,712 | 0.009 |
| Nightclub | 5,600 sf | 600/1,000 sq ft | 3,360 | 0.005 | 5,712 | 0.009 |
| Office | 2,500 sf | 150/1,000 sq ft | 375 | 0.001 | 638 | 0.001 |
| **Total[e]** | | | **27,375** | **0.042** | **46,538** | **0.072** |

[a] *As discussed in Chapter II, Project Description, of this EIR, the existing hotel only operates 65% of its total 240 hotel rooms, or 156 rooms, and restaurant space is assumed to include 1 seat per 25 square feet.*
[b] *Sewer generation factors are based on Sewage Generation Factors, L.A. CEQA Threshold Guide, Exhibit K.2-11, City of Los Angeles, 2006.*
[c] *1 cfs = 646,316.883 gpd.*
[d] *Estimated to be 1.7 times the average daily wastewater generation.*
[e] *Total may not add up due to rounding.*

*Source: _Tsalyuk, Yefim, Sewer Study, Proposed Residential Development 2nd Street & Pacific Coast Highway, Long Beach, California 90803, April 2010.*

## 3. ENVIRONMENTAL IMPACTS

## a. Significance Thresholds

A project may have a significant impact regarding wastewater if it would exceed the significance thresholds included in Section XVII, Utilities and Service Systems, in Appendix G of the CEQA *Guidelines*. As such, the proposed project would result in a significant impact regarding wastewater if it would::

1. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
2. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.
3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

## b. Methodology

For the analysis of wastewater impacts associated with project operation, the wastewater generation of the proposed project was estimated using standard wastewater generation factors. The existing and proposed wastewater flow was then compared to assess the adequacy of the existing sewer treatment and collection system to accommodate the additional flows. In addition, based on the existing flows measured as part of the project-specific Sewer Capacity Analysis (Appendix L of this EIR), a comparison of pre-project sewage flows and post-project sewage flows was conducted for the sewer facilities serving the project site.

## c. Project Design Features

Water conservation for the project would be maximized through the use of water efficient fixtures, as well as compliance with the City's recommended water conservation measures. Specifically, these water conservation measures that the project applicant has committed to implementing the use of bathroom and kitchen faucet aerators, low flow showerheads, high efficiency clothes washers, toilets, and urinals, energy star dishwashers; water-efficient landscaping that includes native or drought-tolerant plants and trees, reduction of turf in landscapes and lawns, and specialized irrigation systems; use of reclaimed water; and use of gray water (to the extent feasible). These additional water conservation measures would reduce the water demand for the project by approximately 25 percent[10], which would in turn reduce the amount of wastewater generated by the proposed project. The project would connect to existing wastewater lines and the project applicant would be required to pay wastewater connection fees to the City.

## d. Analysis of Project Impacts

### (1) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

As discussed above, wastewater from the project site would be treated at LACSD's JWCP and Long Beach's WRP. These facilities are responsible for disposal of the treated wastewater. The Los Angeles Regional Water Quality Control Board (LARWQCB) regulates the treatment of wastewater at treatment plants and the discharge of the treated wastewater into receiving waters. The treatment facilities are responsible for adhering to LARWQCB regulations as they apply to wastewater generated by the project. Both LACSD's JWCP and Long Beach's WRP have been designed to treat typical wastewater flows from different land uses in the City of Long Beach and greater Los Angeles area. The project would comply with all applicable sections of Title 15, *Public Utilities*, of the LBMC and as such, would generate wastewater flows typical of residential, commercial and hotel uses in the City. Therefore, the project would not produce wastewater atypical of flows received at either LACSD's JWCP or Long Beach's WRP. As discussed below under Threshold Nos. 1 and 2, wastewater generated by the Project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities; and would not result in a determination by the wastewater treatment providers that they have inadequate capacity to serve the project's projected demand in addition to existing commitments. Therefore, since the capacity of the treatment facilities that serve the project would not be exceeded with project implementation, no impacts regarding the ability of the treatment facilities to treat/and or dispose of wastewater would occur from project implementation. As such, the project would not contribute to potential impacts associated with disposal of treated wastewater from the serving treatment facilities. Thus, no potential exists for the project to exceed wastewater treatment requirements of the applicable RWQCB. No impact would occur in this regard.

[10] *California Air Pollution Control Officers Association. Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures. August 2010. Pg. 350, 371, and 372.*

**(2) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?**

**or**

**(3) Would the Project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

### (a) Construction

During construction of the proposed project, construction contractors would provide portable, on-site sanitation facilities for use by the construction crews that would be serviced at approved disposal facilities and treatment plants. The amount of construction related wastewater that would be generated would be minimal and would not have a significant impact on wastewater disposal and treatment facilities due to the temporary nature of construction and expected low volumes of wastes. Construction of the project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities; or result in a determination by the City that it has inadequate capacity to serve the project's projected demand in addition to existing commitments. Therefore, construction impacts to the local wastewater conveyance and treatment system would be less than significant.

### (b) Operation

#### *(i) Wastewater Generation and Infrastructure*

Project development would include up to 191,475 square feet of retail uses, 325 residential units, a 100-room hotel with 3,510 square feet of meeting space and 4,368 square feet of restaurant space, 21,092 square feet of non-hotel restaurant space, a 99-seat theater, a 4,175-square-foot marine/science learning center, and associated landscaping and open space. As shown in **Table IV.M.2-2**, *Estimated Wastewater Generation*, the proposed project is estimated to generate approximately 111,448 gpd (0.173 cfs) of wastewater on an average day and approximately 189,462 gpd (0.291 cfs) of wastewater on a peak day. As previously discussed, existing uses on the project site currently generate an estimated 27,375 gpd (0.042 cfs) and 46,538 gpd (0.072 cfs) of wastewater during an average day and peak day, respectively. The existing uses would be demolished and removed from the project site as part of the proposed project. Thus, the proposed project would result in a net wastewater flow increase of approximately 84,073 gpd (0.131 cfs) and 142,924 gpd (0.219 cfs) on an average and peak day, respectively.

As noted above, the additional peak flows from the proposed project would add 0.219 cfs to the 12-inch diameter sewer serving the site, which represents an increase in maximum total flow depth of 0.66 inches. Existing flows are 0.70 cfs at a maximum depth of 7.08 inches, which, when added to the proposed project's peak flow maximum depth of 0.66 inches, yields a total maximum depth of flow of 7.74 inches. This total maximum depth is below the 75-percent maximum flow height of 9 inches for a 12-inch diameter pipeline. As such, project-related flows are determined to be within the conveyance capacity of the local sewer infrastructure serving the site. In addition, the wastewater generation estimated does not account for reductions in wastewater that would occur with implementation of the water conservation project design features presented in Subsection 3(c), above (i.e., up to 25 percent further reduction).

**Table IV.M.2-2**

**Estimated Wastewater Generation[a]**

| Land Use | Amount of Development | Generation Factor (gpd per unit) | Average Flow (gpd) | Average Flow (cfs)[b] | Peak Flow[b] (gpd) | Peak Flow[b] (cfs)[c] |
|---|---|---|---|---|---|---|
| **Proposed Land Uses** | | | | | | |
| Residential | | | | | | |
| One Bedroom | 111 du | 120/du | 13,320 | 0.021 | 22,644 | 0.035 |
| Two Bedroom | 177 du | 160/du | 28,320 | 0.044 | 48,144 | 0.074 |
| Three Bedroom | 37 du | 200/du | 7,400 | 0.011 | 12,580 | 0.019 |
| Hotel | 100 rooms | 130/room | 13,000 | 0.020 | 22,100 | 0.034 |
| Retail | 191,475 sq ft | 80/1,000 sq ft | 15,318 | 0.024 | 26,041 | 0.040 |
| Restaurant | 25,460 sq ft[d] | 30/seat | 30,552 | 0.047 | 51,938 | 0.080 |
| Meeting Space | 3,510 sq ft | 800/1,000 sq ft | 2,808 | 0.004 | 4,774 | 0.007 |
| Theater | 99-seat | 4/seat | 396 | 0.001 | 673 | 0.001 |
| Marine Learning Center | 4,175 sq ft | 80/1,000 sq ft | 334 | 0.001 | 568 | 0.001 |
| **Total[e]** | | | **111,448** | **0.173** | **189,462** | **0.291** |
| **Total Existing Uses** | | | **27,375** | **0.042** | **46,538** | **0.072** |
| **Net Total** | | | **84,073** | **0.131** | **142,924** | **0.219** |

[a] *Sewer generation factors are based on Sewage Generation Factors, L.A. CEQA Threshold Guide, Exhibit K.2-11, City of Los Angeles, 2006.*
[b] *Estimated to be 1.7 times the average daily wastewater generation.*
[c] *1 cfs = 646,316.883 gpd.*
[d] *Restaurant space is assumed to include 1 seat per 25 square feet.*
[e] *Total may not add up due to rounding.*

*Source: PCR Services Corporation, 2010*

***(ii) Wastewater Treatment***

Currently, a majority of the City's wastewater is delivered to the JWPCP that has a design capacity of 385 mgd and currently processes an average flow of approximately 323 mgd. The remaining portion of the City's wastewater is delivered to the Long Beach WRP. The plant provides treatment for up to approximately 25 mgd of wastewater, while flows in excess of the Long Beach WRP's capacity are sent on to the JWPCP for treatment. The total daily flow of wastewater in the City is 347.7 mgd with a combined treatment capacity of 410 mgd, and therefore the treatment system serving the project site has an available treatment capacity of 62.3 mgd. As such, the proposed project's additional peak flow contribution of 142,924 gpd would represent an increase of 0.041 percent [based on a calculation of 142,924 gpd/347.7 mgd] of the current total wastewater flows to JWPCP and Long Beach WRP, and 0.23 percent [based on a calculation of 142,924 gpd/62.3 mgd] of the remaining capacity of the treatment system.[11]

Given that the City currently has 62.3 mgd of additional capacity to treat wastewater, and the proposed project represents only a small percentage of total flows, the proposed project would not result in the need

[11] *Calculations are based on peak flow calculations to provide a worse-case analysis of wastewater impacts.*

for construction or expansion of new wastewater treatment facilities. As such, impacts would be less than significant, and mitigation would not be required.

In conclusion, based on the above, the project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects. Further, operation of the project would not result in a determination by the wastewater treatment providers that they have inadequate capacity to serve the project's projected demand in addition to existing commitments. Therefore, operational impacts to the local wastewater conveyance and treatment system would be less than significant.

## 4. MITIGATION MEASURES

The proposed project would result in less than significant impacts with regard to wastewater during construction and operation. Therefore, no mitigation measures are necessary.

## 5. CUMULATIVE IMPACTS

Chapter III of this Draft EIR identifies five related projects that are anticipated to be developed within the vicinity of the project site. Wastewater generated from four of these projects is conveyed through the JWPCP and the Long Beach WRP, while one of the projects is located in Seal Beach and therefore wastewater flows are conveyed and treated via the Orange County Sanitation District sewer system. **Table IV.M.2-3**, *Estimated Cumulative Wastewater Generation*, presents the estimated wastewater generation for average daily flows and peak flows associated with the related projects. The related projects would generate an average wastewater flow of approximately 24,758 gpd (0.038 cfs) and a peak flow of approximately 42,090 gpd (0.066 cfs).

The four related projects located in Long Beach (Nos. 1-4) in conjunction with the proposed project would generate an average daily flow of approximately 88,081 gpd [based on a calculation of 108,831 gpd – 20,750 (Related Project No. 5)] (0.137 cfs) [based on calculation of 0.169 cfs – 0.032 cfs (Related Project No. 5)] and a peak flow of approximately 149,287 gpd [based on a calculation of 185,012 gpd – 35,725 (Related Project No. 5)] (0.23 cfs) [based on calculation of 0.285 cfs – 0.055 cfs (Related Project No. 5)], which would be conveyed to the JWPCP and Long Beach WRP treatment system. As discussed above, the JWPCP and the Long Beach WRP have a current treatment capacity of 410 mgd, treat an average of 347.7 mgd, and therefore has a remaining capacity of approximately 62.3 mgd. Based on the estimated peak wastewater flow projections,[12] the proposed project in conjunction with the related projects within the City of Long Beach would contribute less than 0.043 percent [based on a calculation of (185,012 gpd-35,725 gpd)/347.7 mgd] of the current wastewater flows conveyed to the JWPCP and Long Beach WRP, and would represent 0.24 percent [based on a calculation of (185,012 gpd – 35,725 gpd/62.3 mgd] of the remaining capacity of the JWPCP and Long Beach WRP treatment system. Related Project No. 5 in Seal Beach would generate an average daily flow of approximately 20,750 gpd (0.032 cfs) and a peak flow of approximately 35,275 gpd (0.055 cfs), which would be conveyed to the Orange County Sanitation District's treatment system. The combined wastewater generation of the proposed project and related projects are within the conveyance and treatment capacity of the respective sewage system serving each project. As such, cumulative impacts

[12] *Ibid.*

**Table IV.M.2-3**

**Estimated Cumulative Wastewater Generation[a, b]**

| Related Project | Land Use | Intensity/ Units[c] | Generation Factor (gpd)[d] | Average Daily Wastewater (gpd) | Average Daily Wastewater (cfs)[f] | Peak Wastewater[e] (gpd) | Peak Wastewater[e] (cfs)[f] |
|---|---|---|---|---|---|---|---|
| 1. | Tutoring Center | 700 sf | 80/1,000 sq ft | 56 | 0.0001 | 95 | 0.0002 |
| 2. | Retail/Restaurant | 23,400 sf | 80/1,000 sq ft | 1,872 | 0.003 | 3,182 | 0.005 |
| 3. | Retail/Car Wash | 17,500 sf | 80/1,000 sq ft | 1,400 | 0.002 | 2,380 | 0.004 |
| 4. | YMCA | 8,500 sf | 80/1,000 sq ft | 680 | 0.001 | 1,156 | 0.002 |
| 5.[g] | Single Family | 55 units | 200/du | 11,000 | 0.017 | 18,700 | 0.029 |
| | Hotel | 75 rooms | 130/room | 9,750 | 0.015 | 16,575 | 0.026 |
| **Total Wastewater Generated by Related Projects** | | | | **24,758** | **0.038** | **42,088** | **0.066** |
| **Net New Wastewater Generated by Proposed Project** | | | | **84,073** | **0.131** | **142,924** | **0.219** |
| **Total Waste Generated by Cumulative Projects** | | | | **108,831** | **0.169** | **185,012** | **0.285** |

[a] *Based on City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates Table dated March 2004.*
[b] *When available, the net amount for the related project was taken and is shown as a negative figure.*
[c] *sf = square feet*
[d] *Generation Factors are expressed in gallons per day (gpd) per unit (i.e., per room, per du, per 1,000 sf, per student, or per seat).*
[e] *Estimated to be 1.7 times the average daily wastewater generation.*
[f] *1 cubic feet per second (cfs) = 646,316.883 gpd.*
[c] *Related Project No. 5 is in Seal Beach.*

*Source: PCR Services Corporation, 2009.*

would be less than significant and the proposed project's contribution to cumulative impacts would not be cumulatively considerable.

## 6. LEVEL OF SIGNIFICANCE OF AFTER MITIGATION

Construction and operation of the proposed project would result in less than significant impacts related to wastewater facilities and infrastructure.