IV. ENVIRONMENTAL IMPACT ANALYSIS
L. UTILITIES
3. SEWER

This section describes the existing sewer or wastewater facilities at the project site, wastewater generation patterns at the site for the existing land uses, and projected wastewater generation associated with implementation of the proposed project.

Information for this analysis is based on a technical study entitled *Wastewater Analysis Report*, prepared by Canyon Consulting, dated February 2003. The full text of the wastewater analysis is included as Appendix J of this EIR.

1. APPLICABLE PLANS AND POLICIES

The City of Huntington Beach General Plan Utilities Element defines goals, objectives, and policies related to the provision of utilities throughout the City. The Element contains the following goal regarding the provision of wastewater services and facilities that specifically apply to the proposed project.

> **U2:** Provide a wastewater collection and treatment system which is able to support permitted land uses; upgrade existing deficient systems; and pursue funding sources to reduce costs of wastewater service provision in the City.

The specific policies of the Utilities Element regarding wastewater services and facilities that are relevant to the project site and/or the proposed project is as follows:

> **U2.1.1:** Approve and implement development in accordance with the standards identified in the Growth Management Element.
>
> **U2.1.6:** Require that sewer capacity is available before building permits are issued for new development.

2. ENVIRONMENTAL SETTING

a. Wastewater Facilities and Generation

The City of Huntington Beach is located within the jurisdictional boundaries of Orange County Sanitation District (OCSD). Specifically, the project site is located within OCSD Service Area 11. Wastewater flows currently generated from the project site are treated at Plant 1 Water Reclamation Plant located at 10844 Ellis Avenue in the City of Fountain Valley. The plant currently maintains a design capacity of 174 million gallons per day (mgd) and treats on average a flow of 90 mgd.[62] OCSD has a second reclamation plant, Plant 2, which maintains a design capacity of 276 mgd and currently treats on average a flow of 153 mgd. Consequently, Plant 1 and Plant 2 are operating at 52 percent and 55 percent of design capacity, respectively.

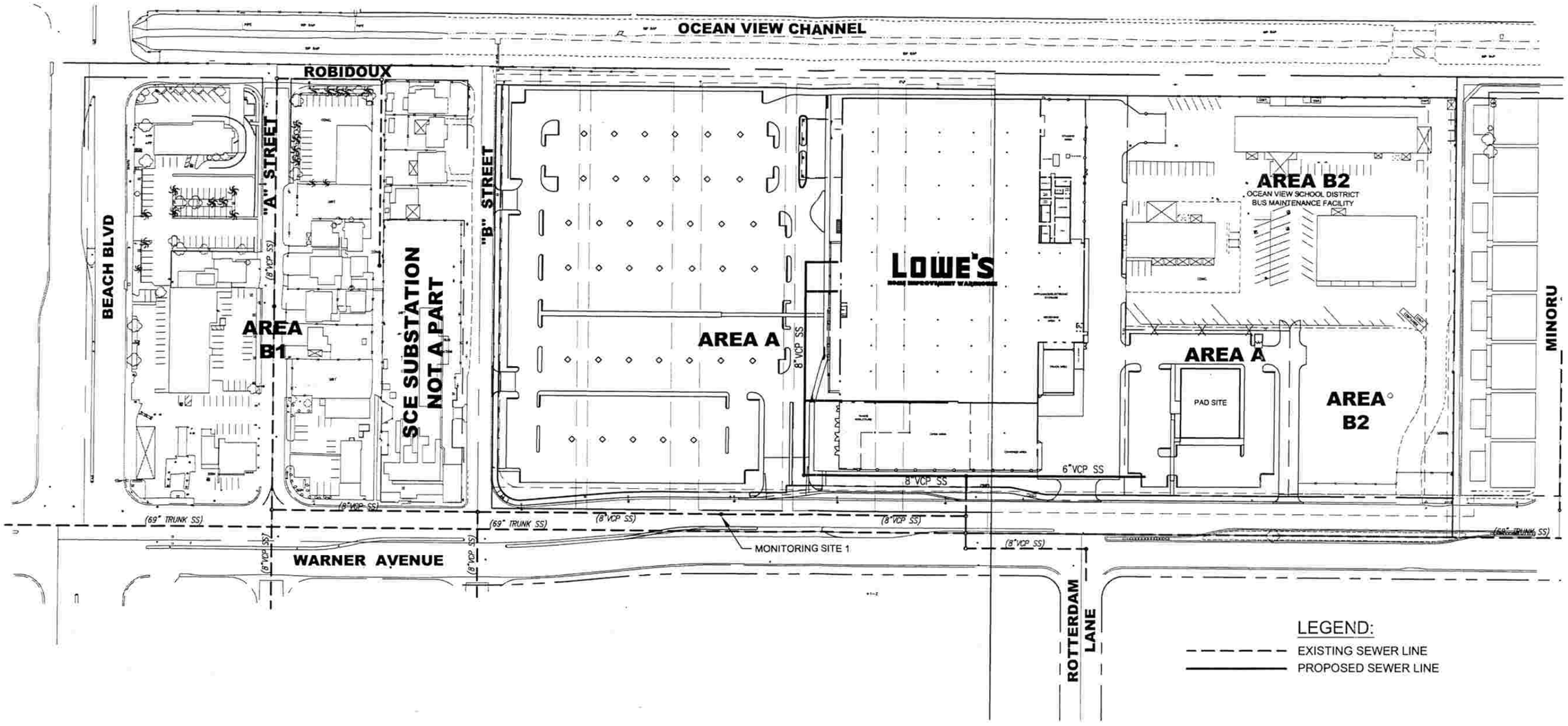
As depicted in Figure IV.L.3-1 on page 273, supporting sewer facilities that currently serve the site are located within the roadways directly surrounding the site. Supporting sewer facilities for Area A include an 8-inch sewer line that is located in Warner Avenue. An 8-inch sewer line located in A Street services Area B1, which then connects to the 8-inch line in Warner Avenue. The 8-inch sewer line in Warner Avenue connects to a 69-inch OCSD sewer transmission line via a 15-inch line at a point located 150 feet westerly of Rotterdam Lane, which then conveys the effluent to the OCSD Plant 1 Water Reclamation Plant. The 69-inch sewer transmission line flows easterly and southerly through various trunk sewer lines until it reaches the reclamation plant in Fountain Valley.

Current wastewater generated at the project site has been estimated based on standard generation factors. These estimates are presented in Table IV.L.3-1 on page 274. Area A of the project site currently generates approximately 6,700 gallons per day (gpd). Area B1 generates approximately 11,644 gpd and Area B2 approximately 2,690 gpd.

b. Flow Monitoring of Sewer System

A flow monitoring study was performed in September 2002 to establish existing baseline flows and available capacity in the existing sewer lines that currently serve the project site and surrounding area. One (1) manhole was selected for measurement on the 8-inch sewer line located in Warner Avenue (refer to Sewer Monitoring Site 1 as identified on Figure IV.L.3-1 on page 273).

[62] *Orange County Sanitation District Website, Quick Facts (contained in Wastewater Analysis Report prepared by Canyon Consulting, February 2003).*



PCR

N

0 75 150 300 Feet

Source: Canyon Consulting, January 2003

Figure IV.L.3-1
Lowe's Home Improvement Warehouse/
Northeast Corner of Beach and Warner Project
Existing and Proposed Sewer System

Table IV.L.3-1

ESTIMATED CURRENT WASTEWATER GENERATION

EXISTING USE	AREA (square feet)	GENERATION FACTOR [1] (gallons/unit)	TOTAL GENERATION (gallons/day)
AREA A			
Public Facility (School)	33,547 sf	200/1000 sf [1]	6,700
Subtotal Area A			**6,700**
AREA B1			
9 Residential Units	9	260/unit [2]	2,340
Commercial/Retail	19,875 sf	207/1000 sf [3]	4,114
Restaurant	4,200 sf	990/1000 sf [4]	4,158
Office	6,500 sf	158/1000 sf [5]	1,027
Subtotal Area B1			**11,639**
AREA B2			
Public Facility (Bus Maintenance)	NA	NA	2,690 [6]
Subtotal Area B2			**2,690**
TOTAL			**21,029**

1 Table of Loadings, Capacity Units and Unit Rates, Los Angeles County Sanitation District, assumes school operations
2 Table of Loadings, Capacity Units and Unit Rates, Los Angeles County Sanitation District
3 Based on 90% of Water Demand – General Commercial Category, San Clemente Water Master Plan, 1994
4 Based on 90% of Water Demand – Family Restaurant Category, San Clemente Water Master Plan, 1994
5 Based on 90% of Water Demand – General Office Category, San Clemente Water Master Plan, 1994
6 Based on 90% of actual water usage per water bills, Ocean View School District

Sewer flow was measured and recorded continuously for a seven-day period in September 2002, as identified in Table IV.L.3-2 on page 275. The observed average and maximum flow rate within the eight-inch sewer line in Warner Avenue is 29 gpm and 72 gpm, respectively. No unusual measurements were recorded during the duration of the monitoring.

3. ENVIRONMENTAL IMPACTS

a. Significance Threshold

The determination of impacts on wastewater facilities is based on the following:

1. Whether wastewater generated by the proposed project would exceed or significantly diminish the capacity of existing wastewater facilities such that the construction of new facilities or the upgrade of existing facilities is required to serve the proposed project areas.

Table IV.L.3-2

SUMMARY OF EXISTING WASTEWATER FLOW RATES 8-INCH SEWER IN WARNER AVENUE

DAY NO.	FLOW TEST PERIOD	TOTAL FLOW GALLONS PER DAY	FLOW RATES AVERAGE (gpm)	FLOW RATES MAXIMUM (gpm)
1	09/18/02-09/19/02	45,046	31	49
2	09/19/02-09/20/02	43,929	31	65
3	09/20/02-09/21/02	39,454	27	53
4	09/21/02-09/22/02	44,877	31	72
5	09/22/02-09/23/02	45,951	32	51
6	09/23/02-09/24/02	41,075	29	48
7	09/24/02-09/25/02	35,582	26	46
Total for Week		**295,914**	**29**	**72**

Source: Canyon Consulting, February 2003.

Impacts on wastewater facilities and services resulting from the proposed project are a function of treatment capacity and conveyance capacity as well as future expected wastewater generation attributable to the proposed project. Table IV.L.3-3 on page 276 summarizes the proposed daily projected wastewater amounts for each area of the proposed project.

b. Project Level Impacts

The Project (Area A) is expected to generate approximately 16,079 gallons per day (gpd) of wastewater or an average of 11.2 gallons per minute (gpm) which represents a 71 percent increase above existing flows of 6,700 gpd. According to the wastewater analysis report (Appendix J of the Draft EIR), flows originating from Area A would primarily affect the 15-inch line connecting to the 69-inch transmission sewer line and not the 8-inch line in Warner Avenue because discharges from Area A are directed into the last manhole on that line[63]. The 15-inch connecting sewer line has a capacity of 1100 gpm. The analysis concludes that the 15-inch sewer line would have more than sufficient capacity to accommodate the increase in wastewater flows with a remaining peak capacity of 904 gpm.

Additionally, the reclamation plant (Plant 1) that would be receiving and treating wastewater originating from the Project site (Area A) also has sufficient capacity to accommodate the increase. Less than significant impacts are identified.

[63] *This conclusion addresses potential flows from Area A development and does not address Areas B1 and B2.*

Table IV.L.3-3

ESTIMATED FUTURE WASTEWATER GENERATION

PROPOSED USE	PROPOSED AREA (square feet)	CONSUMPTION FACTOR (gallons/unit)	TOTAL CONSUMPTION (average gallons/day)
AREA A			
Commercial Retail (Lowe's HIW)	159,300	45/1000 sf [1]	7,169
Restaurant	9,000	990/1000 sf [2]	8,910
Subtotal A			**16,079**
AREA B1			
Commercial/Retail	57,000	207/1000 sf [3]	11,799
Restaurant	4,200	990/1000 sf [2]	4,158
Office	13,200	158/1000 sf [4]	2,086
Subtotal Area B1			**18,043**
TOTAL PROJECT SEWER GENERATION	-	-	**34,122**
AREA B2 (No change to existing facility)			
Public Facility (Bus Maintenance)			2,690 [5]
Subtotal Area B2			**2,690**
TOTAL PROJECT AND EXISTING USE	-	-	**36,812**

1 based on 90% of Water Demand – Storage Land Use Category, San Clemente Water Master Plan, 1994
2 based on 90% of Water Demand – Family Restaurant Category, San Clemente Water Master Plan, 1994
3 based on 90% of Water Demand – General Commercial Category, San Clemente Water Master Plan, 1994
4 based on 90% of Water Demand – General Office Category, San Clemente Water Master Plan, 1994
5 based on 90% of actual water usage from water bills, Ocean View School District

c. Program Level Impacts

Though specific details associated with proposed development of Area B1 are not known, general assumptions have been made about the types and amount of potential square footage that is to occur in this area. As such, preliminary projections of wastewater generation have been calculated as presented in Table IV.L.3-3 above. Accordingly, Area B1 is expected to generate a greater increase in wastewater than Area A in the amount of approximately 18,043 gpd or 12.5 gpm which represents a 61 percent increase above existing flows of 11,644 gpd. The flows originating from Area B1 is assumed to be serviced by the existing sewer line in A Street as well as the 8-inch line in Warner. The 8-inch line in Warner has a design peak capacity of 166 gpm. Peak flows in this line were monitored and recorded at 72 gpm.[64] The analysis concluded that future peak flow rates inclusive of Area B1 peak flow rates would not exceed the design capacity of the existing sewer facility. The projected remaining peak capacity is estimated at 83 gpm for the 8-inch sewer line in Warner. Less than significant impacts on wastewater facilities are anticipated for Area B1 and subsequent analysis of proposed elements associated with Area B1 would not be required.

No new development is proposed within Area B2 at this time; therefore, no change in existing flows from B2 would occur with implementation of the proposed project and no impacts are anticipated.

4. CUMULATIVE IMPACTS

The proposed project in conjunction with the planned projects identified in Section III.B. of the EIR would cumulatively increase citywide wastewater loading on the two existing reclamation plants operated by the OCSD. However, the two OCSD reclamation plants are currently operating well below their design capacity (52% for Plant 1 and 55% for Plant 2) with a combined service capacity of 450 mgd. Adherence to the City of Huntington Beach Policy U2.1.1 would ensure that the wastewater treatment needs of all planned project including the proposed Project would be met and hence, reduce the potential for significant cumulative impacts. As for significant cumulative impacts on existing sewer transmission facilities, no such impacts are anticipated in that there is more than sufficient flow capacity within the existing sewer transmission lines to accommodate the added flows. Though a cumulative increase in flows is expected, the cumulative impact is not considered significant in that different intermediary transmission lines would be used for the various projects.

5. STANDARD CITY POLICIES AND REQUIREMENTS

Compliance with existing State and City development requirements will ensure that adequate and sufficient wastewater service is provided to the proposed Project. Such requirements are included in the Wastewater Analysis Report prepared by Canyon Consulting (refer to Appendix J of this EIR) as follows:

1. The project developer shall be required to construct the necessary on-site sewer improvements in Area A as a private system to convey sewage generated from the proposed uses to the existing sewer lateral.

2. Prior to issuance of a connection permit, the project will be required to pay sewer connection fees according to the fee schedule in place at the time of permitting. The connection fees shall be adjusted to give credit for any prior fees paid by the Ocean View School District for this site.

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[64] *Canyon Consulting, Lowe's Home Improvement Warehouse Huntington Beach, California Wastewater Analysis Report, February 2003.*

3. The sewer improvement plans shall be reviewed by the City's Public Works Department. All on-site sewer facilities shall be constructed in accordance with the Uniform Plumbing Code and City design standards.

6. LEVEL OF SIGNIFICANCE BEFORE MITIGATION

The Project proposes on-site and off-site sewer improvements. With the development of such improvements and with adherence to City development requirements, the existing wastewater infrastructure is capable of accommodating the expected sewer generation from the proposed Project.

7. MITIGATION MEASURES

Because impacts are less than significant, no mitigation measures are required or provided.

8. LEVEL OF SIGNIFICANCE AFTER MITIGATION

No impact.