5.12 - Utilities and Service Systems

5.12.1 - Introduction

This section describes the existing utilities and service systems setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information contained in Appendix -L, Utilities Information.

5.12.2 - Regulatory Setting

There are no federal, state, or local laws or regulations related to utilities and service systems that would materially affect the proposed project.

5.12.3 - Existing Conditions

Solid Waste

Solid waste collection in the project area is provided by the City of Newport Beach for residential uses, and by various private waste haulers for commercial uses. The sanitary landfill serving the project area is the County of Orange Integrated Waste Management Department (IWMD)'s Frank R. Bowerman Landfill, located at 11002 Bee Canyon Access Road, Irvine. This landfill had a remaining capacity of 203.38 million cubic yards as of June 2008. The maximum daily permitted tonnage is 8,500 tons per day, with a daily average of 7,000 tons.

Waste currently generated at the project site is typical for residential use, but varies in quantity by season because most of the mobile homes are not occupied full time. **Table 5.12-1** shows an estimate of the amount of solid waste generated by existing land uses.

Table 5.12-1: Existing Daily Solid Waste Generation (Estimate)

Land Use	Units/Area	Generation Factor	Total Demand (lbs/day)
Community Center	2,800 sf	6lbs/1000 sf/day	16.8
Girl Scout Building	3,985 sf	6lbs/1000 sf/day	23.91
Mobile Home Park	56 units	8.6lbs/day	481.6
Total	—	—	**522.31**

sf = square feet. lb/sf/day = pounds per square feet per day.
Source: California Integrated Waste Management Board website, downloaded April 2004. City of Newport Beach, 2009

Water Service

The Water Division of the City of Newport Beach Utilities Department currently provides domestic water to the project site. Water storage for City supplies is contained within the Big Canyon Reservoir located at 3300 Pacific View Drive in Newport Beach and has a total storage capacity of 200 million gallons. Sources of water include imported water from the Metropolitan Water District and from pumping groundwater from the Orange County Groundwater Basin. The City produces up to 75 percent of its demand from groundwater, with the remaining 25 percent purchased from MWD.

Water to the project site is currently provided by a 16-inch, cast-iron main located below grade between 18th and 15th Streets. Existing on-site uses are estimated to use approximately 7,000 gallons of water per day, mostly by the mobile homes (**Table 5.12-2**).

Table 5.12-2: Existing Daily Water Service Demands (estimate)

Land Use	Units/Area	Generation Factor	Total Demand (gpd)
Community Center	2,800 sf	220 gpd/1000 sf	616
Girl Scout Building	3,985 sf	220 gpd//1000 sf	877
Mobile Home Park	56 units	100 gpd/unit	5,600
19th Street Restroom	800 sf	150 gpd/1,000 sf	120
Total	**—**	**—**	**7,213**

gpd/unit = gallons per day per unit. gpd/sf = gallons per day per square feet.
Source: City of Newport Beach, 2009.

Wastewater Service

Orange County Sanitation District (OCSD) provides sewer and wastewater treatment for a 470-square-mile area of central and northwest Orange County that includes the project site. The City of Newport Beach Utilities Department provides local connections to the OCSD sewer system via an 8-inch, vitrified clay pipe local sewer line located under the project site. The local line runs between 15th Street and 18th Street, and connects to the OCSD 24-inch Balboa trunk sewer line, located under Balboa Boulevard, at 17th Street. The OCSD Balboa trunk sewer is boosted by a pumping station located on Balboa Boulevard between 15th and 16th Streets, on the southeast corner of the project site. The trunk sewer flows to Treatment Plant No. 2 in Huntington Beach. That facility processes an average of 129 million gallons per day (mgd) and has a total design capacity of 168 mgd (an excess capacity of 39 mgd). The existing daily demand on wastewater services by the on-site uses is approximately 7,200 gallons per day, most of it by the mobile homes (**Table 5.12-3**).

Table 5.12-3: Existing Daily Wastewater Service Demands (estimate)

Land Use	Units/Area	Generation Factor	Total Demand (gpd)
Community Center	2,800 sf	220 gpd/1000 sf	616
Girl Scout Building	3,985 sf	220 gpd//1000 sf	877
Mobile Home Park	56 units	100 gpd/unit	5,600
19th Street Restroom	800 sf	150 gpd/1,000 sf	150
Total	**—**	**—**	**7,213**

gpd/sf = gallon per day per square feet. gpd/unit = gallons per day per unit.
Source: City of Newport Beach, 2009

Natural Gas

Natural gas is the second major type of energy consumed in the City of Newport Beach, after electricity. Current estimates indicate that natural gas is consumed primarily by residential land uses for heating and cooking purposes.

The primary natural gas provider in the City of Newport Beach is the Southern California Gas Company (SCGC). SCGC operates a local distribution network that is supplied by a high-pressure regional transmission system. SCGC maintains information on existing pipelines and forecasts future needs based on General Plan land use development and build-out, and projected growth.

The current natural gas system capacity for the project site is approximately 2.75 million cubic feet per year (mcf/yr). There are no planned or proposed enhancements to the system at this time, although future growth in the area could prompt future enhancements. The estimated existing demand for natural gas (**Table 5.12-4**) is approximately equal to the site system's capacity, although those estimates are based on the assumption of all appliances operating at the peak demand and thus overestimate actual use.

Table 5.12-4: Existing Daily Natural Gas Demand (estimate)

Land Use	Units/Area	Generation Factor	Total Demand (mcf/yr)
Community Center	2,800 sf	24.0 cf/sf/yr	0.067
Girl Scout Building	3,985 sf	24.0 cf/sf/yr	0.095
Mobile Home Park	56 units	79,980 cf/unit/yr	2.758
Total	**—**	**—**	**2.920**

mcf/yr = million cubic feet per year cf/sf/yr = cubic feet per square foot per year
Source: Appendix 9, SCAQMD *CEQA Air Quality Handbook*, adopted 1997. Demand factors are based on SCGC average usage rates. City of Newport Beach, 2009

Electricity

Electricity is the major type of energy consumed in the City of Newport Beach. Electrical power is provided by the Southern California Edison Company (SCE), which provides electricity to most of the Los Angeles/Orange County/Inland Empire region. (Electricity is provided by SCE; street lights on and surrounding the project site are owned and maintained by the City.) SCE's electricity is generated from a combination of oil, natural gas, hydroelectric, nuclear, and renewable sources such as wind and solar energy.

Most of Newport Beach's energy is consumed by residential, commercial, industrial, and transportation uses. Current estimates of overall energy consumption indicate that the commercial sector is the largest energy consumer in Newport Beach. On-site uses are estimated to consume approximately 663,000 kilowatt-hours of electricity per year (**Table 5.12-5**), although that estimate does not include park and street lighting consumption.

Table 5.12-5: Existing Daily Electrical Demand (estimate)

Land Use	Units/Area	Generation Factor	Total Demand (thousand kwh/yr)
Community Center	2,800 sf	47.3 kwh/sf/yr	132
Girl Scout Building	3,985 sf	47.3 kwh/sf/yr	188
Mobile Home Park	56 units	6,081 kwh/unit/yr	340
19th Street Restroom	800 sf	3.4 kwh/sf/yr	3
Total	**—**	**—**	**663**

sf = square feet. kwh/sf/yr = kilowatt hour per square foot per year.
kwh/sf/yr = kilowatt hours per year.
Source: Appendix 9, SCAQMD *CEQA Air Quality Handbook*, adopted 1997. Demand factors are based on SCGC average usage rates. City of Newport Beach, 2009

5.12.4 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to utilities and service systems are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

a.) Exceed wastewater treatment requirements of the Orange County Sanitation District?

b.) 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?

c.) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

d.) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

e.) 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?

f.) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

g.) Comply with federal, state, and local statutes and regulations related to solid waste?

An additional threshold that is analyzed and evaluated is the following. Would the project:

h.) Have a substantial impact on the provision of natural gas and electrical services?

5.12.5 - Project Impact Analysis and Mitigation Measures

This section discusses potential impacts associated with the proposed project and provides mitigation measures where necessary.

Wastewater Treatment

5.12-A: The project would not exceed wastewater treatment requirements of the Orange County Sanitation District.

Project-Specific Analysis

Implementation of the proposed project would result in the generation of wastewater. In Phases 1 and 2, wastewater generation would resemble the existing condition (**Table 5.12-3**) less the contribution of the mobile homes, or approximately 1,610 gpd. Projected wastewater generation for the fully built out project (Phase 3), based on the square footage of buildings and structures (**Table 5.12-6**), would be 774 gpd more than the existing condition.

Table 5.12-6: Projected Daily Wastewater Service Demands from Proposed Marina Park (estimate)

Land Use	Units/Area	Generation Factor	Total Demand (gpd)
Balboa Center Complex	21,594 sf	200 gal/1,000 sf	4,320 gpd
Marina	24 Slips	100 gal/Slip	2,400 gpd
Girl Scout Building	5,500 sf	220 gpd/1000 sf	1,210 gpd
19th Street Restroom	460 sf	150 gpd/1,000 sf	70 gpd
Lighthouse Restroom	510 sf	150 gpd/1,000 sf	80 gpd
Total		**—**	**7,080 gpd**

gpd/sf = gallons per day per square feet
Source: City of Newport Beach, 2009

According to OCSD (pers. comm. Patrick McNelly, 2008), the existing 21-inch Balboa trunk sewer line would be adequate to serve the proposed development with a net increase of 774 gpd. The 8-inch local sewer line would not be located under any of the proposed project structures and would not need to be relocated. Furthermore, adequate access to the project's lateral sewer lines would be provided through two manholes on site. Since the existing sewer facilities have adequate capacity, the project would not exceed the wastewater treatment requirements of OCSD. Accordingly, no impacts to wastewater treatment requirements would occur due to project implementation.

Cumulative

Development of future projects that are in accordance with the existing City General Plan throughout the area served by OCSD would require extensions of and connections to the existing wastewater collection treatment facilities. The existing and planned facilities owned and operated by OCSD would adequately serve planned growth in the City of Newport Beach. As previously stated, Treatment Plant No. 2 currently has an excess design capacity of 39 mgd. The project's contribution would be 133 gpd less than under current conditions. Therefore, implementation of the proposed

project, together with cumulative development and growth within the OCSD service area, would result in no impacts on wastewater treatment requirements.

Mitigation Measures

Project Specific
No mitigation measures are required.

Cumulative
No mitigation measures are required.

Level of Significance After Mitigation

Project Specific
No impact.

Cumulative
No impact.

Water or Wastewater Treatment Facilities

5.12-B: The project may 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.

Project-Specific Analysis

As previously stated, Treatment Plant No. 2 and the existing 21-inch OCSD Balboa trunk sewer line have adequate capacity to serve the wastewater generation from the proposed project at full build out. The OCSD expressed concern that the fully-built project would hinder access to the 15th Street Pumping Station, but the city has agreed with OCSD to provide access from the proposed parking lot to provide access to the Pumping Station. Therefore, the proposed project would result in less than significant impacts on existing wastewater facilities.

Implementation of all phase of the proposed project would increase the demand for water. The projected demand of Phase 3, the full build out (**Table 5.12-7**), was estimated from the square footages of the future buildings, and may represent overestimates. For example, the new Girl Scout House is not expected to support more activity than the existing facility, but because it would be bigger it is assumed to demand more water.

On the basis of building square footage, development of the Phase 3 project is estimated to result in an increase in domestic water consumption from 7,213 gpd under current conditions to an estimated 50,104 gpd. According to the City's Utilities Department, adequate domestic water supplies currently exist to serve the increased demand.

Phases 1 would not include any turf or irrigation and would be a decrease in required water supply compared to the existing condition. Phase 2 encompasses 3.83 acres of which 90% would be

landscaping and would consume (3.83 acres x 0.9 x 0.32 gpd/sf) 48,000 gpd, an increase in domestic water consumption when compared to the existing condition of 7,213 gpd.

According to the City's Utilities Department, adequate domestic water supplies currently exist to serve the increased demand.

Table 5.12-7: Projected Daily Water Service Demands from Proposed Marina Park (Estimate)

Land Use	Units/Area	Generation Factor	Total Demand (gpd)
Balboa Center Complex	21,594 sf	250 gal/1,000 sf	5,400 gpd
Marina	24 Slips	100 gal/Slip	2,400 gpd
Girl Scout Building	5,500 sf	220 gpd/1,000 sf	1210 gpd
19th Street Restroom	460sf	200 gpd/1,000 sf	92gpd
Lighthouse Restroom	510 sf	200 gpd/1,000 sf	102 gpd
Landscaping/Water play area.	Approx. 3 acres[a]	0.32 gpd/sf	40,900 gpd
Total		**—**	**50,045 gpd**

[a]Assumes that landscaping area encompasses approximately 60 percent of the park area.
SOURCE: City of Newport Beach, 2009

Construction could affect the existing water distribution infrastructure. The existing water main on the project site is over 70 years old and at a shallow depth. Accordingly, it is possible that heavy construction vehicles could rupture the water line as they traverse the site. In such a case, the water line would be replaced with a new line. Because the site would be under construction and have no residential or commercial uses, the impact of a short-term service interruption (while the pipe was being replaced, would be less than significant.

Cumulative

The proposed project will contribute to an increased demand for water. The site is located in an area that currently receives water service. Because the proposed project could be served by the existing 16" water line, the project would not contribute to a potential significant cumulative impact on the capacity of the existing water line.

Mitigation Measures

Project Specific

No mitigation measures are required.

Cumulative

No mitigation measures are required.

Level of Significance After Mitigation

Project Specific

Less than significant.

Cumulative

Less than significant.

Stormwater Drainage Facilities

5.12-C: The project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Project-Specific Analysis

Implementation of the proposed project would utilize existing storm drainage facilities as well as incorporate other drainage features on the project site. The construction of bioswales and biocells (Phase 3) on the project site would allow for quick percolation of storm water into the soil while filtering urban runoff contaminants. The proposed project would not require construction or expansion of storm water drainage facilities and, therefore, will result in less than significant impacts.

Cumulative

The project would not require the construction of new storm water drainage facilities or expansion of existing facilities. Therefore, the project would result in a less than significant cumulative impact.

Mitigation Measures

Project Specific

No mitigation measures are required.

Cumulative

No mitigation measures are required.

Level of Significance After Mitigation

Project Specific

Less than significant.

Cumulative

Less than significant.

Water Supplies

5.12-D: The project would have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Project-Specific Analysis

The Phase 3 project buildout water demand is estimated at 50,104 gpd. According to the City's Utilities Department, the project's estimated water demand will be adequately served by the existing water supply. Given that the proposed project's water demand is consistent with the City's projections for water demand within their service area, the proposed project would result in less than significant impacts on the City's water supply.

Cumulative

The proposed project will contribute to an increased demand for water. The site is located in an area that currently receives water service. Existing infrastructure consists of a 16 inch transmission main which can adequately serve the proposed development. The City's Utilities Department has indicated that the project's incremental demand for water can be met. Cumulative impacts on water service anticipated to result from this development are considered less than significant.

Mitigation Measures

Project Specific

No mitigation measures are required.

Cumulative

No mitigation measures are required.

Level of Significance After Mitigation

Project Specific

Less than significant.

Cumulative

Less than significant.

Wastewater Treatment Capacity

5.12-E: The project would 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.

Project-Specific Analysis

At full build out (Phase 3) the proposed project is projected to reduce the generation of wastewater by approximately 133 gpd. As described in Section 5.12.3, the existing facilities have adequate capacity. Accordingly, the proposed project would result in a less than significant impact on the existing treatment plant capacity.

Cumulative

Implementation of the proposed project and cumulative projects would increase the generation of wastewater discharged to Treatment Plant No. 2. This increased demand would not result in the need for expanded wastewater facilities because Treatment Plant No. 2 has adequate additional capacity.

Therefore, the implementation of the proposed project and cumulative projects would result in a less than significant impact.

Mitigation Measures

Project Specific

No mitigation measures are required.

Cumulative

No mitigation measures are required.

Level of Significance After Mitigation

Project Specific

Less than significant.

Cumulative

Less than significant.

Landfill Capacity

5.12-F: The project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

Project-Specific Analysis

Implementation of the proposed project would result in the generation of solid waste on the project site. Based on the generation estimates shown in **Table 5.12-8**, on completion of Phase 3 the proposed project would result in the generation of approximately 389 lbs per day or approximately 68 tons per year. (Phases 1 and 2 would result in negligible solid waste, a reduction compared to existing conditions.)

Table 5.12-8: Estimated Solid Waste Generation

Land Use	Units or Square Feet	Generation Rate[a]	Total Generation
Marina	24 Slips	8.6 lbs/slip	206 lbs/day
Balboa Center Complex	21,594 sf	6 lbs/1000 sf/day	130 lbs/day
Girl Scout Building	5,500 sf	6 lbs/1000 sf/day	33 lbs/day
19th Street Restroom	460sf	20 lbs/1,000 sf/day	10lbs/day
Lighthouse Restroom	510sf	20 lbs/1,000 sf/day	10lbs/day
Total Solid Waste:			389 lbs/day

Notes:
[a] California Integrated Waste Management Board, 2006. City of Newport Beach, 2009

According to the City's Solid Waste Division, refuse from the project site would be deposited at the Frank R. Bowerman landfill located in Irvine. Based on growth projections, 203,380,000 cubic yards

of capacity is available at the Frank R. Bowerman Landfill, and it is anticipated to have capacity for approximately 45 more years. Based on the remaining capacity and the anticipated life of the landfill, the average amount of solid waste deposited at the landfill is approximately 4,519,555 cubic yards per year or 12,382 cubic yards a day. The solid waste generated by the proposed project is not expected to increase the amount of refuse deposited at the Frank R. Bowerman Landfill compared to the existing site. Therefore, the proposed project would not increase the existing impact on the remaining capacity of the Frank R. Bowerman Landfill. Therefore, the proposed project would result in a less than significant impact on the existing landfill capacity.

Cumulative

Implementation of the proposed project together with anticipated growth in the project vicinity would increase the amount of municipal solid waste generated. There is sufficient capacity in the Frank R. Bowerman Landfill to accommodate disposal needs resulting from the proposed project and future anticipated growth. Cumulative impacts on solid waste service from project development are considered less than significant.

Mitigation Measures

Project Specific

No mitigation measures are required.

Cumulative

No mitigation measures are required.

Level of Significance After Mitigation

Project Specific

Less than significant.

Cumulative

Less than significant.

Compliance with Solid Waste Regulations and Statutes

5.12-G: The project would comply with federal, state, and local statutes and regulations related to solid waste.

Project-Specific Analysis

The proposed project includes uses that will generate solid waste that is expected to be transported to the Frank R. Bowerman Landfill. The City ensures that the transportation of the refuse would comply with the applicable federal, state, and local statutes and regulations related to solid waste.

Typically, recreational activities do not generate, store, or dispose of significant quantities of hazardous materials. The proposed project would include uses such as onsite herbicide and pest control. Additionally, general site maintenance and repair such as painting and janitorial services that utilize cleaners, lubricants, and paints would occur. All hazardous material would be required to be

stored, handled, and disposed of in accordance with applicable federal state and local laws and regulations as required by the City of Newport Beach. Hazardous materials are required to be separated from the solid waste generated at the site.

Solid waste generated on the project site will comply with a host of comprehensive and applicable federal, state, and local statutes and regulations related to solid waste, and therefore, the project will result in less than significant impacts insofar as all regulations related to solid waste would be adhered to.

Cumulative

Development of the proposed project and cumulative development within the City would increase the generation of solid waste. Transportation of the refuse would be provided by the City or City-contractor and will be required to comply with applicable federal, state, and local statutes and regulations related to solid waste.

Implementation of the proposed project and cumulative project would be required to comply with applicable federal, state, and local statutes and regulations related to solid waste. Therefore, less than significant cumulative impacts on solid waste will occur with the future development of the proposed project and cumulative projects.

Mitigation Measures

Project Specific

No mitigation measures are required.

Cumulative

No mitigation measures are required.

Level of Significance After Mitigation

Project Specific

Less than significant.

Cumulative

Less than significant.

Natural Gas and Electricity

5.12-H: The project would not have a substantial impact on the provision of natural gas and electrical services.

Project-Specific Analysis

Implementation of Phase 3 of the proposed project would result in the demand for natural gas and electrical services (Phases 1 and 2 would result in minimal to no demand for natural gas). As shown in **Table 5.12-9**, on completion of Phase 3 the proposed project would result in the demand for

approximately 0.65 million cubic feet of natural gas per year (mcf/yr). This would result in a decrease in the use of natural gas of over 2,919 million cubic fet of natural gas compared to the existing uses on the project site. The proposed project would continue the demand for natural gas, but the project's impact on existing services would be less than significant.

As shown in **Table 5.12-10**, on completion of Phase 3, the proposed project would result in the demand for approximately 1.6 million kilowatt hours per year (KWH/yr). This would result in an increase in the use of electricity of 910 thousand KWH/yr compared to the existing uses on the project site (Phases 1 and 2 would result in minimal to no demand for electricity). Although the proposed project would result in an increased demand for electricity, the demand is expected to be adequately served by the existing electrical facilities on the project site. As part of the project (Phase 3), the aboveground electrical facility would be placed below ground. The proposed project would result in a less than significant impact on existing electrical services and facilities.

Table 5.12-9: Estimated Yearly Natural Gas Demands from Proposed Marina Park

Land Use	Units/Area	Generation Factor	Total Demand (mcf/yr)
Balboa Center Complex	21,594 sf	24 cf/sf/yr	0.518
Marina	24 Slips	N/A	N/A
Girl Scout Building	5,500 sf	24 cf/sf/yr	0.132
19th Street Restroom	460 sf	N/A	N/A
Lighthouse Restroom	510sf	N/A	N/A
Total			**0.65**

cf/sf/yr = cubic feet per square foot per year
Source: City of Newport Beach, 2009

Table 5.12-10: Estimated Yearly Electricity Demand from Proposed Marina Park

Land Use	Units/Area	Generation Factor	Total Demand (thousand kwh/yr)
Balboa Center Complex	21,594 sf	47.3 kwh/sf/yr	1,021
Marina	24 Slips	12,000 kwh/slip/yr	288
Girl Scout Building	5,500 sf	47.3 kwh/sf/yr	260
19th Street Restroom	460 sf	3.4 kwh/sf/yr	2
Lighthouse Restroom	510 sf	3.4 kwh/sf/yr	2
Total			**1,573**

kwh/sf/yr = kilowatt hours per square feet per year
Source: City of Newport Beach, 2009.

Cumulative

Since implementation of the proposed project would result in less than significant impacts on existing natural gas and electrical services, the proposed project's contribution to potential cumulative impacts would be less than cumulatively considerable.

Mitigation Measures

Project Specific

No mitigation measures are required.

Cumulative

No mitigation measures are required.

Level of Significance After Mitigation

Project Specific

Less than significant.

Cumulative

Less than significant.