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 H, Utilities Information.

5.12.2 - Existing Conditions

Solid Waste

Solid waste collection in the project area is provided by the City of Newport Beach for residential uses and various private waste haulers are responsible for commercial collection. The County of Orange Integrated Waste Management Department (IWMD) owns and operates three landfills in Orange County. The landfill serving the project area is the 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.

Waste currently generated is typical for a residential use of the size and type at the project site, but varies by season since most of the mobile home units are not occupied full time. Estimates of waste generation by the State Integrated Waste Management Board (www.ciwmb.ca.gov), for similar residential uses range between 4 and 8.6 pounds per unit per day. There are no generation rates given for mobile home parks, only multi-family and single-family. 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 House	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.

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. Water to the project site is currently provided via a 16-inch cast iron water main and is located below grade on the project site between 18th and 15th Streets. 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. Estimated daily water service demands are presented in 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 House	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: Michael Brandman Associates, 2008.

Wastewater Service

Orange County Sanitation District (OCSD) provides sewer and wastewater treatment for a 470-square-mile area of central and northwest Orange County which 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 (VCP) local sewer line located under the project site. The local line extends between 15th Street and 18th Street and connects to a 21-inch OCSD trunk sewer line located under Balboa Boulevard at 17th Street. The OCSD Balboa trunk sewer main flows to Treatment Plant No. 2 in the City of Huntington Beach. This treatment plant processes an average of 51 million gallons per day (mgd) and has a total design capacity of 172 mgd. Table 5.12-3 shows an estimate of the existing daily demand on wastewater services.

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 House	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: Michael Brandman Associates, 2008.

Natural Gas

In addition to electricity, natural gas is the second major type of energy consumed in the City of Newport Beach. The primary natural gas provider in the City of Newport Beach is the Southern California Gas Company (SCGC). Current estimates of overall energy consumption indicate that

natural gas is consumed primarily by the City's residential land uses for heating and cooking purposes.

SCGC operates a local natural gas distribution network which is supplied by a high pressure regional transmission system. SCGC maintains information on existing pipelines, forecasts future needs based on General Plan land use development and overall general plan 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 existing easements on the project site and, currently, there are no planned or proposed enhancements to the system at this time. Future enhancements to the pipeline system would be dependent on future growth in the area and throughout the City of Newport Beach. Specific future enhancements to load, pressure, and the location of new facilities would also be dependent upon the specific types of growth planned for the area.

Consumption demand estimates are based on an estimate to serve all appliances under peak hour operating conditions and varies depending on the number of appliances to be served. Table 5.12-4 shows an estimate of the existing daily natural gas demand.

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 House	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.

Electricity

Electricity is one of two major types of energy consumed in the City of Newport Beach. Electrical power is provided by the Southern California Edison Company (SCE). 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, agricultural, and transportation uses. Current estimates of overall energy consumption indicate that the commercial sector is the largest energy consumer in Newport Beach. Table 5.12-5 shows an estimate of the existing daily electrical demand.

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 House	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.

5.12.3 - 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 applicable Regional Water Quality Control Board?

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?

5.12.4 - Project Impact Analysis and Mitigation Measures

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

Wastewater Treatment

Impact 5.12-A: The project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Project-Specific Analysis

Implementation of the proposed project would result in the generation of wastewater. Based on the estimated generated rates, Table 5.12-6 shows the projected daily demand of the project for wastewater service.

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	26,990 sf	200 gal/1,000 sf	5,398 gpd
Marina	24 Slips	100 gal/Slip	2,400 gpd
Girl Scout House	4,700 sf	220 gpd/1000 sf	1,034 gpd
19th Street Restroom	800 sf	150 gpd/1,000 sf	120 gpd
Lighthouse Restroom	800 sf	150 gpd/1,000 sf	120 gpd
Total		**—**	**9,072 gpd**

gpd/sf = gallons per day per square feet
Source: Michael Brandman Associates, 2008.

Compared with the existing wastewater generation estimate at the project site (7,213 gpd), the project would generate approximately 1,859 gpd more wastewater than the existing land use. However, according to OCSD (Patrick McNelly, 2008), the existing 24-inch sewer line would be adequate to serve the proposed development. The 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 sewer lines through two manholes onsite will be provided. In addition, since there would be adequate capacity within the 24-inch line, the project would not exceed the wastewater treatment requirements of the Regional Water Quality Control Board. Therefore, 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 144 mgd. The project's contribution

of an estimated 9,072 gpd is not considerable. 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

Impact 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 sewer line has an adequate capacity to serve the wastewater generation from the proposed project. Therefore, the proposed project would result in less than significant impacts on existing wastewater facilities.

The implementation of the proposed project would also demand water. Based on estimated generation rates, Table 5.12-7 shows an estimate of the daily water service demands required by the proposed project.

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

Land Use	Units/Area	Generation Factor	Total Demand (gpd)
Balboa Center Complex	26,990 sf	250 gal/1,000 sf	6,750 gpd
Marina	24 Slips	100 gal/Slip	2,400 gpd
Girl Scout House	4,700 sf	220 gpd/1,000 sf	1,034 gpd
19th Street Restroom	800 sf	200 gpd/1,000 sf	160 gpd
Lighthouse Restroom	800 sf	200 gpd/1,000 sf	160 gpd
Landscaping/Water play area.	Approx. 3 acres[a]	0.32 gpd/sf	40,900 gpd
Total		**—**	**51,404 gpd**

[a]Assumes that landscaping area encompasses approximately 60 percent of the park area.

Development of the proposed project would result in an increase in domestic water consumption from the estimated 7,213 gpd to an estimated usage of 51,404 gpd. However, according to the City's Utilities Department, adequate domestic water supplies currently exist to serve the increased demand. The existing water main on the project site is over 70 years old and at a shallow depth. Due to the pipe's age and shallow depth, construction vehicles may affect the water line. If the water line is affected, the line would be replaced with a new line. Implementation of the proposed project may result in a significant water utility impact.

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

MM 5.12-B.1 If construction vehicles break the existing 16-inch water line, the water line will be replaced.

Cumulative

No mitigation measures are required.

Level of Significance After Mitigation

Project Specific

Less than significant.

Cumulative

Less than significant.

Stormwater Drainage Facilities

Impact 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 will utilize existing drainage facilities as well as incorporate other drainage features on the project site. Additionally, the construction of bioswales and biocells 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 will not require the construction of new storm water drainage facilities or expansion of existing facilities. Therefore, the project will 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

Impact 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 project buildout water demand is estimated at 51,404 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 can be readily extended into the site to 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

Impact 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

As previously stated, the Orange County Sanitation District provides sewer and wastewater treatment for a 470-square-mile area of central and northwest Orange County which includes the project site. The City of Newport Beach Utilities Department provides local connections to the OCSD sewer system via an 8-inch VCP local sewer line located under the project site. The local line extends between 15th Street and 18th Street and connects to a 21 inch OCSD trunk sewer line located under Balboa Boulevard. The OCSD Balboa trunk sewer main flows to Treatment Plant No. 2 in the City of Huntington Beach. This treatment plant processes an average of 51 million gallons per day (mgd) and has an existing primary treatment design of 169mgd (Patrick McNelly, October 2008)

The project is projected to increase the generation of approximately 1,859 gpd of wastewater. This increase is considered nominal, and 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 will increase the generation of wastewater that will be conveyed to Treatment Plan No. 2. This increased demand would not result in the need for expanded wastewater facilities. Therefore, the implementation of the proposed project and cumulative projects would not exceed the existing wastewater treatment capacity and will result in a less than significant effect.

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

Impact 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 5.12-9, the proposed project will result in the generation of approximately 404 lbs per day or approximately 74 tons per year.

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	26,990 sf	6 lbs/1000 sf/day	162 lbs/day
Girl Scout House	4,700 sf	6 lbs/1000 sf/day	28 lbs/day
19th Street Restroom	800 sf	5 lbs/1,000 sf/day	4 lbs/day
Lighthouse Restroom	800 sf	5 lbs/1,000 sf/day	4 lbs/day
Total Solid Waste:			404 lbs/day

Notes:
[a] California Integrated Waste Management Board, 2006.

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

Impact 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

Impact 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 the proposed project would result in the demand for natural gas and electrical services. According to Table 5.12-9, the proposed project would result in the demand for approximately 0.76 million cubic feet of natural gas per year (mcf/yr). This would result in a decrease in the use of natural gas compared to the existing uses on the project site. Since the proposed project would continue the demand for natural gas, the project's impact on existing services would be less than significant.

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	26,990 sf	24 cf/sf/yr	0.648
Marina	24 Slips	N/A	N/A
Girl Scout House	4,700 sf	24 cf/sf/yr	0.112
19th Street Restroom	800 sf	N/A	N/A
Lighthouse Restroom	800 sf	N/A	N/A
Total			**0.76**

cf/sf/yr = cubic feet per square feet per year
Source: Michael Brandman Associates, 2008.

According to Table 5.12-10, the proposed project would result in the demand for approximately 1.8 million kilowatt hours per year (KWH/yr). This would result in a increase in the use of electricity compared to the existing uses on the project site. 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, 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 5.12-10: Estimated Yearly Electricity Demand from Proposed Marina Park

Land Use	Units/Area	Generation Factor	Total Demand (thousand kwh/yr)
Balboa Center Complex	26,990 sf	47.3 kwh/sf/yr	1,277
Marina	23 Slips	12 kwh/slip/yr	276
Girl Scout House	4,700 sf	47.3 kwh/sf/yr	222
19th Street Restroom	800 sf	3.4 kwh/sf/yr	3
Lighthouse Restroom	800 sf	3.4 kwh/sf/yr	3
Total			**1,781**

kwh/sf/yr = kilowatt hours per square feet per year
Source: Michael Brandman Associates, 2008.

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.