

4.14 UTILITIES AND SERVICE SYSTEMS

This section evaluates the impacts of the proposed General Plan Update associated with utilities and service systems within the City of Newport Beach. During the Initial Study process, it was determined that the proposed General Plan Update would result in potential impacts related to water supply, water and wastewater treatment facilities, and solid waste. Full bibliographic entries for all reference materials are provided in Section 4.14.5 (References) of this section.

No comment letters were received during the IS/NOP comment period.

4.14.1 Water System

■ Existing Conditions

Water service within the Planning Area is provided by the City, Irvine Ranch Water District (IRWD), and Mesa Consolidated Water District (Mesa). Figure 4.14-1 illustrates the service boundaries of each provider in the Planning Area.

Water Infrastructure

City of Newport Beach

The City provides water service to most of the Planning Area encompassing approximately 36 square miles, as shown in Figure 4.14-1. Presently, Banning Ranch is outside of any water provider service area; however, if the Banning Ranch area is annexed to the City, the City intends to provide service to this area.

The City provides water service to nearly 75,600 people and various land uses. The City water supplies are imported water purchased from the Municipal Water District of Orange County (MWDOC), groundwater pumped from the Orange County Groundwater Basin, and reclaimed water. Through the existing infrastructure totaling over 210 miles within the City's service area, water is delivered via transmission mains and distribution lines. Existing water lines range from 1 to 36 inches, with the majority of the pipelines ranging from 8 to 12 inches in diameter. Transmission mains convey water to various sections of the distribution system and the distribution lines deliver water to local areas. In addition, the City's water infrastructure includes five pump stations and 43 pressure reducing stations. The water distribution system is divided into five major pressure zones that serve elevations from sea level to 725 feet above sea level.

Within the region, there are four main groundwater basins: the La Habra Basin, the San Juan Basin, the Laguna Canyon Basin, and the Lower Santa Ana Basin. These basins supply several cities and agencies, and are administered by Basin Pumping Percentages, as allocated by the Orange Coast Water District (OCWD). The City receives its groundwater from the Lower Santa Ana Basin (Basin), which is also called the Coastal Plain of Orange County Groundwater Basin. Since 1997, the City has operated four

groundwater wells in Fountain Valley at the Dolphin Avenue and Tamura School sites. Each site contains one shallow well and one deep well. Upon extraction, the water travels over six miles in 30-inch transmission mains, through the cities of Fountain Valley, Huntington Beach, Costa Mesa, and eventually into Newport Beach. From the wells, the groundwater is conveyed to the 16th Street Reservoir at the City's utilities yard, and then to different areas within the City's service boundaries.

Water Storage

The City uses three water system storage reservoirs: Big Canyon Reservoir, Zone 4 Reservoir, and 16th Street Reservoir. The Big Canyon Reservoir, which is located in Corona del Mar and shown in Figure 4.14-1, is a distribution and storage concrete earthen dam reservoir that has a capacity of approximately 196 million gallons (MG) and a maximum water surface elevation of 302 feet. However, the City maintains this reservoir at an average level of about 286 feet, providing approximately 300 acre-feet (AF) (98 MG) of storage. A cover was installed on the reservoir in 2005. The Zone 4 Reservoir is a circular 1.5 MG below-grade concrete tank that has a maximum elevation of 663 feet, located on Muir Beach Circle. The 16th Street Reservoir is a buried cast-in-place concrete tank that has a capacity of 1 MG, located at 951 West 16th Street. As discussed above, this reservoir serves as a holding tank for well water.

Fire Flows

As discussed in further detail in Section 4.11 (Public Services) of this EIR, the Newport Beach Fire Department is responsible for fire suppression within the City. The Fire Department relies on the area's infrastructure, including the adequacy of nearby water supplies to suppress fire. Thus, the City has adopted the section of the 2001 California Fire Code that lists the minimum required fire flow and flow duration for buildings of different floor areas and construction types (Appendix III-A of the Fire Code.) Fire flow is the flow rate of water supply (measured in gallons per minute) available for fire fighting measured at 20 pounds per square inch (psi) pressure. Available fire flow is the total water flow available at the fire hydrants, also measured in gpm. Consistent with the California Fire Code, Section 9.04.450 of the City's Municipal Code indicates that, in buildings fitted with approved internal automatic sprinkler systems, the minimum required fire flow for that structure may be reduced by up to 50 percent, as approved by the Fire Chief, but the resulting fire flow cannot be less than 1,500 gpm.⁸²

Irvine Ranch Water District

The service area covered by IRWD is approximately 85,019 acres, or 133 square miles, located in southern-central Orange County, which includes a portion of Newport Beach as well as other surrounding cities. IRWD is responsible for serving the southeastern portion of the Planning Area, which includes the Newport Coast and Newport Ridge areas, as shown in Figure 4.14-1. In addition, IRWD serves small portions along the northern boundary of the Planning Area, including the areas of Santa Ana Heights, Bonita Canyon, a portion of the Airport Area, and Bay Knolls. In total, IRWD serves

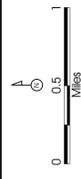
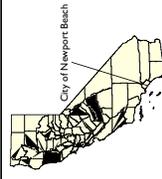
⁸² Irvine Ranch Water District. 2003. Water Resources Management Plan. Adopted 2000, most recently updated in 2003.

**CITY OF NEWPORT BEACH
GENERAL PLAN UPDATE EIR
Figure 4.14-1
WATER INFRASTRUCTURE
AND SERVICE AREAS**

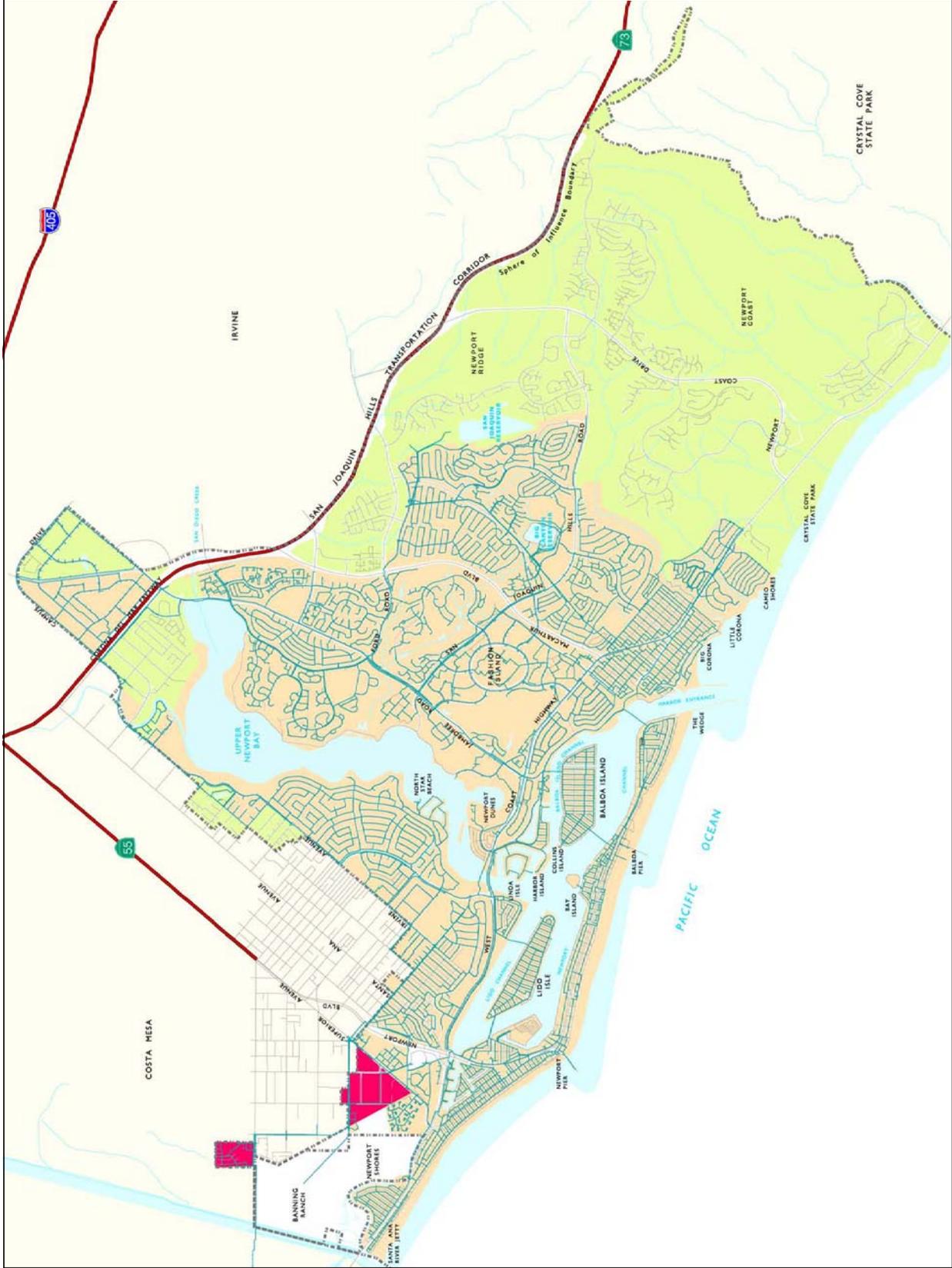
- Legend**
- City Boundary
 - Water Infrastructure
 - Water Providers
 - City of Newport Beach
 - Irvine Ranch Water District
 - Mesa Consolidated Water District
 - Hydrography
 - Tidelands and Submerged Lands
 - Waterway
 - Roads
 - State and Federal Highway
 - Streets

*Note: Water infrastructure data for Irvine Ranch Water District not available.

Note: GIS Data Projection - CA State Plane Zone 6, NAD83, feet.



Source: City of Newport Beach, Water Plan, June 2003; City Boundary, May Boundaries, 2002; EIR, Major Roads, February 2002; and EIR Associates, GIS Program, November 14, 2001.
Project No. 10579-03



approximately nine square miles within the Planning Area, which accounts for approximately seven percent of IRWD's total service area boundaries.

IRWD is a multiservice agency that provides potable and nonpotable water and wastewater services to a population of approximately 316,000. IRWD's current population of 316,000 is approximately 73 percent of the ultimate projected population estimated at 434,511 for 2030.⁸³ IRWD prefers to diversify and rely less on imported water and more on local supplies, and has therefore developed extensive groundwater pumping capacities to meet potable demands in addition to imported supplies. The source of IRWD's potable groundwater supply is the Lower Santa Ana River Basin within the Orange County Groundwater Basin (Basin). Potable water is pumped from approximately 16 wells in the Dyer Road Well Field (DRWF), located in the City of Santa Ana. These wells, ranging from 400 to 1,200 feet in depth, extract water from the Orange County Groundwater Basin. The DRWF supply is conveyed to the IRWD distribution system via a 54-inch-diameter transmission main located in Dyer Road (Barranca Parkway in the City of Irvine). The additional IRWD water supply is provided by imported treated water, primarily from MWD, through two major transmission pipelines.

The existing nonpotable water system consists of two subsystems: (1) a reclaimed water system that delivers reclaimed water, supplemental and untreated water, and limited nonpotable groundwater from the Irvine Subbasin (within the Basin) and (2) an untreated water system that delivers imported untreated water and local runoff via the Irvine Lake Pipeline to supplement the reclaimed water system. Existing water mains throughout the Planning Area range in size from 8 to 24 inches in diameter.⁸⁴

Water Storage

IRWD divides potable water system storage into four categories: operational storage, fire flow storage, seasonal storage, and emergency storage. Operational and fire storage, and in some cases emergency storage, are typically provided in local storage facilities (tanks). Seasonal and emergency storage are closely aligned with source of supply issues and are provided through seasonal use of the groundwater basin. Nonpotable storage includes the operational and seasonal storage categories, with operational storage typically being provided in tanks and seasonal storage in large open reservoirs.

Within the IRWD service boundaries, three existing tanks provide potable water storage to the Planning Area in three water pressure service zones with the following existing capacities: (1) Coastal Zone 2 (2 MG); (2) Coastal Zone 4 (6.5 MG); and (3) Coastal Zone 6 (2.6 MG). In addition, IRWD has three existing tanks that provide nonpotable water storage within the Planning Area including the San Joaquin Reservoir as shown in Figure 4.14-1, Coastal Zone D, and Coastal Zone G. Operated by IRWD, the total existing capacity of the San Joaquin Reservoir is approximately 3,000 AF. Coastal Zone D has an existing capacity of 5 MG and Coastal Zone G has an existing capacity of 2.5 MG.

⁸³ Irvine Ranch Water District, 2005. *Urban Water Management Plan*, November.

⁸⁴ Irvine Ranch Water District. 2003. *Water Resources Management Plan*. Adopted 2000, most recently updated in 2003.

Fire Protection Water

Currently, in the IRWD, public fire protection water is provided through unmetered connections to the potable water system (i.e., fire hydrants and fire line connections). Although previously requested by the Orange County Fire Authority (OCFA), public fire protection connections to the nonpotable water system as secondary sources have not been approved by the California Department of Health Services (CDHS). IRWD provides water for private fire protection via on-site or on-property water lines, which typically serve private fire hydrants and automatic building fire sprinkler systems.

Mesa Consolidated Water District

Mesa Consolidated Water District serves a small portion of the western boundary of the Planning Area, which includes the area directly north of Banning Ranch as well as the area east of Newport Shores to Superior Avenue for a service area of approximately less than one-half square mile. As discussed previously, no water service provider (including Mesa Consolidated Water District) presently provides water to Banning Ranch itself. The total service area covered by Mesa includes approximately 19 square miles, which includes Costa Mesa, part of Newport Beach. The area served by Mesa within the Planning Area accounts for approximately one percent of Mesa's total service boundaries.

Water Treatment and Drinking Water Quality

City of Newport Beach

The drinking water supply for the City is a blend of mostly groundwater from the Orange County groundwater basin and also surface water imported by MWD. MWD's imported water source is mostly the Colorado River, with augmentation by the State Water Project from Northern California. The groundwater comes from a natural underground reservoir managed by the Orange County Water District that generally stretches from the Prado Dam and fans across the northwestern portion of Orange County.

The City's imported surface water supply is treated at either one of two treatment plants: (1) the MWD Diemer Filtration Plant, located in Yorba Linda; or (2) MWD's Weymouth Filtration Plant, which is located in the San Gabriel Valley. Typically, the Diemer Filtration Plant receives a blend of Colorado River water from Lake Matthews through the MWD lower feeder and State Water Project water through the Yorba Linda Feeder. The blend ratio between the two sources varies from year to year.⁸⁵ Treatment capacity at the Diemer Filtration Plant is approximately 520 MGD, with existing average winter flows at approximately 140 MGD, increasing to approximately 375 MGD in the summer. Thus, during the winter the plant operates at approximately 27 percent capacity, during the summer at approximately 72 percent capacity.⁸⁶

Similar to the Diemer Plant, the treatment capacity at the Weymouth Filtration Plant is approximately 520 MGD. Existing average winter flows are approximately 220 MGD, and existing summer flows are

⁸⁵ Irvine Ranch Water District. 2003. *Water Resources Management Plan*, 4-8. Adopted 2000, most recently updated in 2003.

approximately 340 MGD. Therefore, the Weymouth Filtration Plant operates at approximately 42 percent during the winter, and at approximately 65 percent during the summer.⁸⁷

Currently, the City's groundwater supply is treated at the City's Utility Yard, located at 949 W. 16th Street, and consists of five pumps and two chamber reservoirs that can accommodate up to 1.5 MG each. The groundwater is blended with surface water and treated with sodium hypochlorite (the equivalent of household bleach), which is a typical application to achieve a potable water supply, before eventually being pumped through the water distribution system. In addition, the new Big Canyon Reservoir Disinfection Facility was put into service December 2004.⁸⁸

Irvine Ranch Water District

Similar to the City's surface water treatment process, the majority of IRWD's imported potable water is supplied from a single source, the MWD Diemer Filtration Plant, located north of Yorba Linda. In addition to Diemer-treated imported water, IRWD also receives potable water from MWD's Weymouth Filtration Plant via the Orange County Feeder.⁸⁹ As discussed previously, the Diemer Filtration Plant currently operates at approximately 27 percent capacity during the winter and at approximately 72 percent capacity during the summer, while the Weymouth Filtration Plant operates at approximately 42 percent during the winter and at approximately 65 percent during the summer.⁹⁰

Local groundwater is purified at disinfection facilities near the Dyer Road Wellfield before it is provided to customers. An Annual Water Quality Report is distributed by IRWD to customers each April, providing water testing results and information about water quality. Currently, the drinking water provided by IRWD meets and exceeds all quality standards set by both the State and Federal government.⁹¹

Mesa Consolidated Water District

For purposes of this analysis, since Mesa provides potable water service to a nominal portion of the Planning Area, water treatment and drinking water quality information was not obtained from the service provider.

Water Supply and Demand

City of Newport Beach

Domestic water for the Planning Area is supplied by both groundwater and imported surface water sources, as previously discussed. Currently, 75 percent of the water supplied by the City's service area is

⁸⁶ Trask, Willy. 2004. Personal communication with Metropolitan Water District, Water Quality Division, 9 January.

⁸⁷ Trask, Willy. 2004. Personal communication with Metropolitan Water District, Water Quality Division, 9 January.

⁸⁸ Antista, Pete. 2006. Written communication with Utilities Director, City of Newport Beach. 20 March.

⁸⁹ Irvine Ranch Water District. 2003. *Water Resources Management Plan*, 4-8. Adopted 2000, most recently updated in 2003.

⁹⁰ Trask, Willy. 2004. Personal communication with Metropolitan Water District, Water Quality Division, 9 January.

⁹¹ Irvine Ranch Water District, 2005. Annual Water Quality Report. Website: <http://www.irwd.com/WaterQuality/WQReport2005.pdf>

supplied by groundwater from the Orange County Groundwater Basin, and the remaining 25 percent of water supply is provided by MWD, which delivers water imported from the Colorado River and State Water Project. The groundwater supply for the City’s water system is extracted from two well sites, as discussed above, established in Fountain Valley.⁹²

Current and Projected Water Supplies

Table 4.14-1 shows the projected water supply and demand for the City through 2030.

Table 4.14-1 Current and Planned Water Supply and Demand (AFY)						
	2005	2010	2015	2020	2025	2030
Water Supply Sources						
MWDOC	6,404	5,758	6,157	6,362	6,226	6,256
OCWD (Lower Santa Ana Basin)	11,927	13,590	14,921	14,778	14,990	14,960
Recycled Water (projected use)	317	444	478	500	500	500
Total Water Supply Sources	18,648	19,792	21,556	21,640	21,716	21,716
Projected Demand	18,648	19,792	21,556	21,640	21,716	21,716
SOURCE: City of Newport Beach. 2005 Urban Water Management Plan (Table 3-5 and Table 4-8), December						

The future supply projection assumes that the City will continue to produce groundwater and purchase local water. Currently, the City purchases imported water from the Municipal Water District of Orange County (MWDOC) through MWD.

According to the City of Newport Beach’s 2005 Urban Water Management Plan, water supplies can continue to meet the City’s imported water needs until the year 2030. Beyond that date, improvements associated with the State Water Project supply, additional local projects, conservation, and additional water transfers would be needed to adequately serve the City. The Groundwater Replenishment System (GRS), a joint venture by OCWD and the Orange County Sanitation District (OCSD), will help to reduce Orange County and Newport Beach’s reliance on imported surface water by taking treated wastewater and injecting it into the groundwater basin. GRS will be online by 2007, and will produce approximately 70,000 acre feet of water per year. OCWD, which provides the groundwater supply to the City, projects that there would be sufficient groundwater supplies to meet any future demand requirements in Newport Beach. As such, the future water supply projections in Table 4.14-1 are based on implementation of City conservation programs, additional recycled water, additional production of groundwater, and MWDOC efforts to reduce the City’s dependence on imported water supplies from MWD.

According to the 2005 UWMP, desalinated water is not currently perceived to be a viable option for the City water supply, and neither brackish nor impaired groundwater is pumped. Though the City is not pursuing desalination as a potential water supply, some of its neighboring agencies and its wholesale water supplier (MWDOC) are actively investigating the possibility. MWDOC has performed preliminary

⁹² Newport Beach, City of. 1999. *Water Master Plan*.

siting and cost analyses, and the City of Huntington Beach, in conjunction with a private entity, has approved the facility. Currently, no potential for the desalination of brackish groundwater has been identified in Newport Beach. In addition, the City does not transfer and/or exchange any water supply to or from other entities, and it is not anticipated that transfer or exchange will occur in the future.

Water Supply Reliability

During short-term periods of water supply reductions, the City would implement its water shortage contingency plan. Table 4.14-2 includes the anticipated local and imported water supplies for the City during a normal water year, a single dry water year, and multiple dry water years. Factors that could result in an inconsistent water supply are climactic in nature, according to the 2005 Urban Water Management Plan.

Table 4.14-2 Supply Reliability (AFY)					
2010	Normal Water Year (Average)	Single Dry Year	Multiple Dry Water Years		
			2008	2009	2010
Local Supply	14,034	12,439	13,293	12,094	12,439
	% of Normal	88.6%	94.7%	86.2%	88.6%
Imported Supply	5,758	8,450	7,260	8,099	8,450
	% of Normal	146.8%	126.1%	140.7%	146.8%
2015	Normal Water Year (Average)	Single Dry Year (1961)	Multiple Dry Water Years		
			2008 (1959)	2009 (1960)	2010 (1961)
Local Supply	15,399	12,840	13,670	12,041	12,840
	% of Normal	83.4%	88.8%	78.2%	83.4%
Imported Supply	6,157	9,911	8,706	10,114	9,911
	% of Normal	161.0%	141.4%	164.3%	161.0%
2020	Normal Water Year (Average)	Single Dry Year (1961)	Multiple Dry Water Years		
			2008 (1959)	2009 (1960)	2010 (1961)
Local Supply	15,278	11,526	14,075	11,652	11,526
	% of Normal	75.4%	92.1%	76.3%	75.4%
Imported Supply	6,362	11,314	8,978	10,771	11,314
	% of Normal	177.8%	141.1%	169.3%	177.8%
2025	Normal Water Year (Average)	Single Dry Year (1961)	Multiple Dry Water Years		
			2008 (1959)	2009 (1960)	2010 (1961)
Local Supply	15,490	12,195	14,138	12,343	12,195
	% of Normal	78.7%	91.3%	79.7%	78.7%
Imported Supply	6,226	10,726	9,006	10,168	10,726
	% of Normal	172.3%	144.6%	163.3%	172.3%
2030	Normal Water Year (Average)	Single Dry Year (1961)	Multiple Dry Water Years		
			2008 (1959)	2009 (1960)	2010 (1961)
Local Supply	15,460	11,817	14,531	12,211	11,817
	% of Normal	76.4%	94.0%	79.0%	76.4%
Imported Supply	6,256	11,104	8,639	10,308	11,104
	% of Normal	177.5%	138.1%	164.8%	177.5%

SOURCE: City of Newport Beach. 2005 Urban Water Management Plan (Table 4-9), December

Since the City’s entire potable water demand is met with imported and local water supplies, the City is highly dependent on OCWD and MWD to meet its needs during dry years. However, MWD does not anticipate any shortages in the dry-year scenarios analyzed, and in addition, Tables 4.14-3 and 4.14-4 indicate that in both normal water and single dry precipitation years, the City would have sufficient water to meet its customers’ needs through 2030. Table 4.14-5 through Table 4.14-9 show supply and demand during multiple dry-precipitation years through 2030, and indicate that during this time period, the City would have sufficient water to meet its customer’s needs.

Table 4.14-3 Projected Normal Water Supply and Demand Comparison (AFY)					
	2010	2015	2020	2025	2030
Supply totals	19,792	21,556	21,640	21,716	21,716
Demand totals	19,792	21,556	21,640	21,716	21,716
Difference	0	0	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%	0.0%	0.0%

SOURCE: City of Newport Beach, 2005 Urban Water Management Plan, December.

Table 4.14-4 Projected Single Dry-Year Supply and Demand Comparison (AFY), 2020 2025 2030					
	2010	2015	2020	2025	2030
Supply totals	20,889	22,751	22,841	22,921	22,921
Demand totals	20,889	22,751	22,841	22,921	22,921
Difference	0	0	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%	0.0%	0.0%

SOURCE: City of Newport Beach, 2005 Urban Water Management Plan, December.

Table 4.14-5 Projected Supply and Demand Comparison During Multiple Dry-Year Period Ending in 2010 (AFY) 2008			
	2006	2007	2008
Supply totals	20,553	20,193	20,889
Demand totals	20,553	20,193	20,889
Difference	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%

SOURCE: City of Newport Beach, 2005 Urban Water Management Plan, December.

Table 4.14-6 Projected Supply and Demand Comparison During Multiple Dry-Year Period Ending in 2015 (AFY) 2015

	2013	2014	2015
Supply totals	22,376	22,155	22,751
Demand totals	22,376	22,155	22,751
Difference	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%

SOURCE: City of Newport Beach, 2005 Urban Water Management Plan, December.

Table 4.14-7 Projected Supply and Demand Comparison During Multiple Dry-Year Period Ending in 2020 (AFY) 2019 2020

	2018	2019	2020
Supply totals	23,053	22,423	22,841
Demand totals	23,053	22,423	22,841
Difference	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%

SOURCE: City of Newport Beach, 2005 Urban Water Management Plan, December.

Table 4.14-8 Projected Supply and Demand Comparison During Multiple Dry-Year Period Ending in 2025 (AFY)

<i>Supply</i>	2023	2024	2025
Supply Totals	23,144	22,511	22,921
Demand Totals	23,144	22,511	22,921
Difference	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%

SOURCE: City of Newport Beach, 2005 Urban Water Management Plan, December.

Table 4.14-9 Projected Supply and Demand Comparison During Multiple Dry-Year Period Ending in 2030 (AFY)

<i>Supply</i>	2028	2029	2030
Supply Totals	23,170	22,519	22,921
Demand Totals	23,170	22,519	22,921
Difference	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%

SOURCE: City of Newport Beach, 2005 Urban Water Management Plan, December.

Irvine Ranch Water District

Approximately 35 percent of IRWD’s current water supply is purchased from MWD, with the remaining 65 percent coming from local groundwater wells.⁹³ The majority of imported potable water is supplied from the MWD Diemer Filtration Plant.⁹⁴ For many years, IRWD received all of its water from imported sources. However, in 1979, IRWD began developing a series of local wells called the Dyer Road Wellfield Project in order to alleviate dependency on imported water sources.⁹⁵ In general, areas in southern-central Orange County served by the IRWD receive groundwater from mid-April through mid-October and imported water from mid-October through mid-April.⁹⁶

Historical water demands for IRWD’s total service area are presented in Table 4.14-10, as presented in the IRWD’s Water Resources Master Plan. As discussed previously, the area served within the Planning Area represents approximately seven percent of IRWD’s total service area. With the exception of the drought years in the early 1990’s, water use showed a slow upward trend, due to growth in water use by residential, commercial, and industrial users.

	1981–1982	1984–1985	1989–1990	1994–1995	1999–2000	2000–2001
Demand (AF)	61,070	65,550	77,850	61,870	88,860	86,550

SOURCE: Irvine Ranch Water District Water Resources Master Plan, adopted 2000, most recently updated in 2003, Figure ES-1

Table 4.14-11 illustrates the estimated future water supply and demand during normal conditions. As shown, IRWD has sufficient water to meet customer needs through 2030 in average demand years, based on a continued commitment to conservation, additional recycled water use, and additional groundwater treatment.⁹⁷

	2010	2015	2020	2025	2030
Supply Totals	164,121	161,421	165,014	166,434	166,434
Demand Totals	116,710	123,119	130,063	135,208	136,560
Difference (Supply – Demand)	47,411	38,302	34,951	31,226	29,874

SOURCE: Irvine Ranch Water District, 2005. Urban Water Management Plan, November. Table 42.

The projected supply in IRWD’s Urban Water Management Plan assumes new potable groundwater supplies will be developed as planned to greatly reduce reliance on imported water under normal and dry

⁹³ Irvine Ranch Water District, 2005. IRWD Fact Sheet, July. Website: <http://www.irwd.com/MediaInfo/factsheet.pdf>
⁹⁴ Irvine Ranch Water District, 2005. Urban Water Management Plan, November.
⁹⁵ Irvine Ranch Water District, 2005. IRWD Fact Sheet, July. Website: <http://www.irwd.com/MediaInfo/factsheet.pdf>
⁹⁶ Irvine Ranch Water District, 2004. January Website: www.irwd.com/WaterQuality/WaterSources.html
⁹⁷ Irvine Ranch Water District, 2005. Urban Water Management Plan, November.

year operating conditions. Imported water deliveries are expected to be reduced in the projected supply mix, only because IRWD is developing local supplies; however, IRWD owns more capacity in the imported supplies than what is projected in this analysis. It is anticipated that MWD imported water will be required for supplemental supply as well as peak and emergency conditions.⁹⁸

Secure, potable water supplies are required to meet (1) maximum day demands under normal operating conditions, and (2) to meet maximum month demands under worst-case, short-term supply outage scenarios. In the event of a single dry year, IRWD has sufficient supply to meet demand without requiring any reduction in use. In regards to IRWD's imported supplies, MWD fully expects to be 100 percent reliable throughout the next 20 years through effective management of its water supply.⁹⁹

IRWD's effective water efficiency improvements and additional water supply will help to enhance IRWD's water supply position and ensure IRWD meets projected water demand. The District will continue to assess improving water supplies, including expanding water recycling through conversions, groundwater storage, other groundwater treatment methods, or other such water supply alternatives. If necessary, for subsequent dry years, the District would enter into a Stage I alert of the Water Shortage Contingency Plan, and emphasize voluntary reduction in water use to all customers, but may not impose any additional restrictions. IRWD anticipates having sufficient water supplies to meet estimated demands under projected multiple dry year scenarios.¹⁰⁰

Mesa Consolidated Water District

On an annual basis, Mesa delivers approximately 8 billion gallons (24,500 AF) of water to various users.¹⁰¹ Approximately 75 percent of Mesa's water is provided by local groundwater pumped from Orange County's natural groundwater basin via nine wells. Similar to the City's service, the remaining 25 percent of Mesa's water is imported water from MWD, which delivers water imported from the Colorado River and State Water Project. At various times of the year, Mesa will supplement its groundwater with imported water.¹⁰² As discussed previously, the area served within the Planning Area represents approximately one percent of Mesa's total service area. Thus, information regarding water demand and use was not obtained.

Recycled Water

City of Newport Beach

The City of has approximately 10 miles of recycled water distribution pipeline, which currently supplies eight recycled use sites. Recycled water is supplied to the City from the Orange County Water District (OCWD) from Fountain Valley as part of OCWD's Green Acres Project. OCWD produces approximately 7.5 mgd of tertiary treated, disinfected recycled water. Some of the sites served by recycled

⁹⁸ Irvine Ranch Water District, 2005. Urban Water Management Plan, November.

⁹⁹ Irvine Ranch Water District, 2005. Urban Water Management Plan, November.

¹⁰⁰ Irvine Ranch Water District, 2005. Urban Water Management Plan, November.

¹⁰¹ Mesa Consolidated Water District. 2003. Water Quality Report.

¹⁰² Mesa Consolidated Water District. 2003. Water Quality Report.

water include the Newport Beach County Club, the Big Canyon Country Club, median strips, and a City-owned park.

Potential recycled water users are locations where recycled water could replace potable water use. These potential users are typically landscape or agricultural irrigation systems. In 2003, the City identified potential recycled water users by looking at past studies, water and irrigation meter records, and assistance from OCWD. User types included golf courses, landscape medians, school athletic fields, a cemetery, and park irrigation. Specific potential customers were listed, along with an estimate of recycled water use at that site.

The City has identified and approached all of the cost-effective end users, and the number of users could only be increased if a neighboring agency provided the reclaimed water and provided it to the City. However, in most areas, the cost to install mains and services would make the conversion very expensive or cost prohibitive. The City currently serves approximately 3,336 AFY of irrigation demand using potable water, but these demands are mostly located a long distance from the existing recycled system, and it is not cost-effective to connect. To promote the use of recycled water, the City provides financial incentives by offering a 20 percent discount off potable water rates. The current rate for recycled users is \$1.66 per unit (one unit equals 748 gallons).

Irvine Ranch Water District

Currently, reclaimed accounts for over 20 percent of IRWD's total water resource demands.¹⁰³ The reclaimed water is delivered through a completely separate distribution system that includes more than 245 miles of pipeline, eight storage reservoirs, and twelve pump stations throughout IRWD's entire service area. Reclaimed water was originally served to agricultural users and expanded to include landscape irrigation (parks, golf courses, school grounds and play fields, community associations, open space area, green belts). Eventually, the reclaimed water system expanded further to include front and backyard irrigation for large estate-sized residential lots, toilet flushing for large commercial buildings, carpet dyeing, construction dust control, and a cooling tower application. In addition, many water features such as fountains are filled with reclaimed water. IRWD's recycled water program has enhanced local water supply reliability for both IRWD and the region, because it directly offsets the need for firm treated, imported water for municipal irrigation, and other nonpotable uses.

Mesa Consolidated Water District

At the time of preparation of this document, limited information was available regarding Mesa's recycled water program. However, it is known that Mesa encourages commercial and industrial customers to use reclaimed water for greenbelt areas.¹⁰⁴

¹⁰³ Irvine Ranch Water District, 2005. Urban Water Management Plan, November.

¹⁰⁴ Mesa Consolidated Water District, Website: http://www.mesawater.org/html/new_customer.htm, accessed on January 27, 2006.

■ Regulatory Context

Federal Regulations

Clean Water Act

The Federal Clean Water Act (CWA) establishes regulatory requirements for potable water supplies including raw and treated water quality criteria. The City of Newport Beach would be required to monitor water quality and conform to the regulatory requirements of the CWA.

Safe Drinking Water Act

The Federal Safe Drinking Water Act (SDWA) established standards for contaminants in drinking water supplies. Maximum contaminant levels or treatment techniques were established for each of the contaminants. The listed contaminants include metals, nitrates, asbestos, total dissolved solids, and microbes.

State Regulations

Safe Drinking Water Act (1976)

California enacted its own Safe Drinking Water Act. CDHS has been granted primary enforcement responsibility for the SDWA. Title 22 of the California Administrative Code establishes CDHS authority and stipulates drinking water quality and monitoring standards. These standards are equal to or more stringent than the Federal standards.

Recycled Water Regulations

Within the State of California, recycled water is regulated by the U.S. Environmental Protection Agency (EPA), the State Water Resources Control Board, Regional Water Quality Control Boards, and DHS. The State Water Resources Control Board has adopted Resolution No. 77-1, Policy with Respect to Water Reclamation in California. This policy states that the State Board and Regional Boards will encourage and consider or recommend for funding water reclamation projects that do not impair water rights or beneficial instream uses. The CDHS establishes the recycled water uses allowed in the State, and designates the level of treatment (i.e., undisinfected secondary, disinfected secondary, or disinfected tertiary) required for each of these designated uses (Title 22, California Code of Regulations).

The Regional Water Quality Control Boards implement the State Board's Guidelines for Regulation of Water Reclamation and issue waste discharge permits that serve to regulate the quality of recycled water based on stringent water quality requirements. The State Department of Health Services develops policies protecting human health and comments and advises on Regional Water Quality Control Board permits.

Title 22

The California Water Code requires the Department of Health Services (DHS) to establish water reclamation criteria. In 1975, the DHS prepared Title 22 to fulfill this requirement. Title 22 regulates production and use of reclaimed water in California by establishing three categories of reclaimed water: primary effluent, which typically includes grit removal and initial sedimentation or settling tanks; adequately disinfected, oxidized effluent (secondary effluent) which typically involves aeration and additional settling basins; and adequately disinfected, oxidized, coagulated, clarified, filtered effluent (tertiary effluent) which typically involves filtration and chlorination. In addition to defining reclaimed water uses, Title 22 also defines requirements for sampling and analysis of effluent and requires specific design requirements for facilities.

Local Regulations

City of Newport Beach Municipal Code

Chapter 14.16 of the City's Municipal Code, Water Conservation, provides a mechanism for quickly imposing mandatory water conservation measures ranging from voluntary consumption reductions to measures that restrict water usage to the minimum necessary for basic human health and sanitation. The mandatory restrictions on water use, the prohibitions of activities that waste water as well as the penalties and surcharges provided by this chapter, are the minimum controls necessary to insure adequate supplies of water are available now and in the future.

In addition, Chapter 14.17, Water-Efficient Landscaping, establishes reasonable procedures and standards for the design, installation, and maintenance of water-efficient landscapes in conjunction with new construction projects within the City to promote the conservation and efficient use of water within the City and prevent the waste of available water resources.

■ Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2005 CEQA Guidelines. For purposes of this EIR, implementation of the proposed project may have a significant adverse impact on water systems within the Planning Area if it would result in any of the following:

- Require or result in the construction and/or expansion of water supply facilities, the construction of which could cause significant environmental impacts
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed

■ Project Impacts, Mitigation Measures, and Proposed Policies

Effects Not Found to Be Significant

The IS/NOP prepared for the proposed project did not identify any effects not found to be significant associated with water systems. Therefore, all thresholds are addressed in this section.

Project Impacts

Threshold	Would the project require or result in the construction of new and/or expanded water treatment or conveyance facilities, the construction of which could cause significant environmental effects?
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Impact 4.14.1-1 Implementation of the proposed General Plan Update could require or result in the construction of new and/or expanded water treatment plants or water conveyance systems in the Planning Area.

As discussed in the Existing Conditions section, the City's imported surface water supply is primarily treated at the MWD Diemer Filtration Plant, located in Yorba Linda, with a treatment capacity of approximately 520 MGD, flowing at an average of 140 MGD in the winter (27 percent capacity) and 375 MGD in the summer (72 percent capacity). In addition to Diemer-treated imported water, IRWD also receives potable water from MWD's Weymouth Filtration Plant, which operates at approximately 42 percent capacity during the winter and 65 percent capacity during the summer. Currently, the City's groundwater supply is treated at the City's Utility Yard, located at 949 W. 16th Street, and consists of five pumps and two chamber reservoirs that can accommodate up to 1.5 MG each. In addition, the new Big Canyon Reservoir Disinfection Facility was put into service December 2004.

Additional development accommodated under the proposed General Plan Update would increase water use within the City, thus increasing the need for water treatment services. As discussed above, MWD can meet 100 percent of the City's imported water needs until the year 2030. Beyond that date, improvements associated with the State Water Project supply, additional local projects, water conservation, and additional water transfers would be needed to adequately serve the City. OCWD, which provides the groundwater supply to the City and portions of IRWD, anticipates that there would be sufficient groundwater supplies to meet projected future demand requirements in Newport Beach. Further, IRWD has identified sufficient groundwater supplies to meet demands through 2030.

Furthermore, any request for service resulting from new development would be subject to a site-specific evaluation of the existing water system's capacity to service the development. If improvements to the existing water system are required or additional facilities are needed, the property developer would be required to pay its fair share of the cost of all or portions of the needed improvements. Within the City, environmental impacts associated with any new infrastructure would be ascertained at a later time, prior to implementation, as impacts related to individual development projects are beyond the scope of this program-level analysis. In addition, proposed General Plan Update goals and policies, as stated below under Impact 4.14.1-2, direct the City to implement water conservation measures to limit water consumption and meet the current and projected future daily and peak water demands of Newport Beach. Proposed General Plan Update Policy LU 2.8 directs the City to accommodate land uses that can be adequately supported by infrastructure, including water treatment and conveyance facilities. As such, adequate water infrastructure would be provided for all development under the proposed General Plan Update. These impacts would be *less than significant*.

Threshold	Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?
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Impact 4.14.1-2 Implementation of the proposed General Plan Update could result in increased demand for water supply within the Planning Area beyond existing entitlements.

Water service within Newport Beach is provided by the City, IRWD, and Mesa. Generally, Newport Beach provides water service to approximately 36 square miles of the City; IRWD serves approximately nine square miles; and Mesa serves less than one square mile.

Domestic water for the Planning Area is supplied by both groundwater and imported surface water sources, as discussed above. Currently, a majority of water supplied to the Planning Area (through both the City and IRWD) is supplied by groundwater from the Basin. Specifically, approximately 75 percent of the water supplied by the City’s service area is supplied by groundwater from the Basin, and the remaining 25 percent of water supply is provided by MWD. Similarly, approximately 65 percent of IRWD’s water comes from local wells, while the remaining 35 percent is imported from MWD. Implementation of the proposed General Plan Update would increase the population and amount of development within the City, which in turn would increase the demand for water supplies.

City of Newport Beach Service Area Analysis

The future water supply projection assumes that the City will continue to produce groundwater and purchase local water. Currently, the City purchases imported water from the MWD through MWDOC. Buildout of the proposed General Plan Update would increase water demand by approximately 428 AFY within the City service area (excluding the Banning Ranch area), above existing conditions. Buildout of the Banning Ranch area under the alternative included in the proposed General Plan Update would increase water demand by an additional 570 AFY. In total, the proposed General Plan Update would increase water demand within the City service area by approximately 998 AFY. MWDOC’s 2030 projected availability is illustrated in Table 4.14-1. However, according to the MWD 2005 UWMP, the 2030 projected availability of imported water supply exceeds the 2030 projected region-wide demand for imported water supply by at least 155,000 AF. Therefore, MWDOC has indicated that there is adequate existing and planned imported water supply to accommodate the increased demand associated with the proposed General Plan Update.¹⁰⁵

This amount of projected development within the City could place more demand on the local groundwater supply to avoid the purchase of additional imported water, even though sufficient imported water is projected to be available. However, the proposed General Plan Update has identified the minimization of water consumption as one of its goals in the Natural Resources Element. The policies to achieve this goal include enforcement of water conservation measures that limit water usage, prohibit activities that waste water or cause runoff, and require the use of water efficient landscaping and

¹⁰⁵ Metropolitan Water District Orange County. Memorandum to City staff re: Proposed General Plan Update. April 18, 2006.

irrigation in conjunction with other water conserving devices and practices in both new construction and major alterations and additions to existing buildings. Policy NR 1.3 also directs the City to explore the appropriateness of implementing tiered water rates. The proposed General Plan Update has also identified expanding the use of alternative water sources to provide adequate water supplies for present use and future growth as a goal. Policies proposed to achieve this goal include Policy NR 2.1, which aims to increase the use of recycled water in the City by continuing to provide financial incentives, staff assistance, and training opportunities for customers, and expand the recycled water infrastructure and programs, when feasible; and Policy NR 2.2, which directs using alternative water sources for the City water supply by implementing advanced water treatment processes such as brackish groundwater and seawater desalination programs, when feasible. Implementation of these policies would ensure that water conservation measures are implemented and potential impacts to groundwater supply are reduced.

Because implementation of the proposed policies would reduce future water demand and MWDOC has indicated sufficient imported water supplies are available to serve buildout of the proposed General Plan Update, the proposed General Plan Update would not require new or expanded water entitlements. The water supply impact associated with the City's water service boundaries within the Planning Area is *less than significant*.

IRWD Service Area Analysis

Implementation of the proposed General Plan Update would increase the amount of development in the IRWD service area. IRWD estimates that the proposed General Plan Update would increase potable water demand by 270 AFY, compared to the assumptions in the current IRWD UWMP. The additional water demand generated by buildout of the proposed General Plan Update would not change the IRWD UWMP conclusions with respect to projected water supply reliability.¹⁰⁶ As discussed previously, IRWD has identified sufficient water supplies during normal, single dry year scenarios, and multiple dry year scenarios for both imported and groundwater supplies. IRWD has also identified surplus water supplies under all of these scenarios.

Consequently, because IRWD anticipates a sufficient water supply to cover estimated demands as well as future demands resulting from unanticipated changes in land use throughout its service area boundaries (such as the General Plan Update), IRWD would be able to serve the future land uses under the proposed project from existing entitlements and resources. The water supply impact associated with IRWD service boundaries within the Planning Area would be *less than significant*.

Mesa Consolidated Water District Service Area Analysis

The land use changes within the Mesa service area due to implementation of the proposed General Plan Update are projected to increase water demand compared to existing conditions by approximately 58.6 AFY. Mesa has indicated that they have adequate water supply sources to supply the additional demand

¹⁰⁶ Diamond, Richard A. Irvine Ranch Water District. Memorandum to City of Newport Beach Re: Draft EIR for the General Plan Update, April 13, 2006.

resulting from the proposed General Plan Update.¹⁰⁷ The water supply impact associated with Mesa service boundaries within the Planning Area would be *less than significant*.

Cumulative Impacts

The geographic context for the analysis of cumulative impacts associated with water systems would be the water provider projections for the Planning Area.

Currently, the City, IRWD, and Mesa provide water service to the Planning Area. Although all water providers are required to prepare plans to ensure that adequate water supplies exist for future growth, there is ongoing controversy surrounding the State's water supply and distribution efforts. MWDOC, the City's provider of imported water, IRWD, and Mesa have each indicated they can accommodate the additional demand from the proposed General Plan Update in addition to future growth assumed in the respective UWMPs. In addition, the implementation of conservation measures would be required on a project-specific basis and water shortage contingency plans would further reduce additional water demand. Finally, future development is required to adhere to Section 10910 of the California Water Code. Therefore, the cumulative impact to water supply would be *less than significant*.

■ Proposed General Plan Update Policies

Implementation of policies within the Land Use and Natural Resources Elements of the proposed General Plan Update would reduce impacts associated with water supplies, treatment, and conveyance systems to a less-than-significant level. The policies that are applicable to the project are included below. Policies identified below that are also contained in the Harbor and Bay Element are denoted with an "HB."

Land Use Element

Goal LU 2 A living, active, and diverse environment that complements all lifestyles and enhances neighborhoods, without compromising the valued resources that make Newport Beach unique. It contains a diversity of uses that support the needs of residents, sustain and enhance the economy, provide job opportunities, serve visitors that enjoy the City's diverse recreational amenities, and protect its important environmental setting, resources, and quality of life.

Policy LU 2.8 Adequate Infrastructure

Accommodate the types, densities, and mix of land uses that can be adequately supported by transportation and utility infrastructure (water, sewer, storm drainage, energy, and so on) and public services (schools, parks, libraries, seniors, youth, police, fire, and so on).

¹⁰⁷ McVicker, Rob. Mesa Consolidated Water District. Written communication via email to City staff, April 5, 2006.

Goal LU 3 A development pattern that retains and complements the City’s residential neighborhoods, commercial and industrial districts, open spaces, and natural environment.

Policy LU 3.2 Growth and Change

Enhance existing neighborhoods, districts, and corridors, allowing for re-use and infill with uses that are complementary in type, form, scale, and character. Changes in use and/or density/intensity should be considered only in those areas that are economically underperforming, are necessary to accommodate Newport Beach’s share of projected regional population growth, improve the relationship, and reduce commuting distance between home and jobs, or enhance the values that distinguish Newport Beach as a special place to live for its residents. The scale of growth and new development shall be coordinated with the provision of adequate infrastructure and public services, including standards for acceptable traffic level of service.

Water Supply

Goal NR 1 Minimized water consumption through conservation methods and other techniques.

Policy NR 1.1 Water Conservation in New Development

Enforce water conservation measures that limit water usage, prohibit activities that waste water or cause runoff, and require the use of water-efficient landscaping and irrigation in conjunction with new construction projects. (Imp 2.1, 7.1, 13.1, 17.1, 23.1, 37.1)

Policy NR 1.2 Use of Water Conserving Devices

Establish and actively promote use of water conserving devices and practices in both new construction and major alterations and additions to existing buildings. This can include the use of rainwater capture, storage, and reuse facilities. (Imp 2.1, 13.1, 23.1)

Policy NR 1.3 Tiered Water Rates

Explore the appropriateness of implementing tiered water rates. (Imp 23.2)

Policy NR 1.4 Alternative Conservation Measures

Explore implementation of alternative conservation measures and technology as they become available. (Imp 23.10)

Policy NR 1.5 Education

Establish educational programs on water conservation. (Imp 23.1, 44.1)

Goal NR 2 Expanded use of alternative water sources to provide adequate water supplies for present uses and future growth.

Policy NR 2.1 Recycled Water Use

Increase the use of recycled water in the City by continuing to provide financial incentives, staff assistance, and training opportunities for customers, and expand recycled water infrastructure and programs, when feasible. (Imp 23.1)

Policy NR 2.2 Advanced Water Treatment Processes

Use alternative water sources for the City’s water supply by implementing advanced water treatment processes such as brackish groundwater and seawater desalination programs, when feasible.

Mitigation Measures

No mitigation measures are necessary, as the proposed General Plan Update policies fully mitigate the impacts.

Level of Significance After Policies/Mitigation Measures

Impacts associated with the water supplies, treatment plants, and conveyance systems would be *less than significant*. In addition, cumulative impacts associated with the water supplies, treatment plants, and conveyance systems would also be *less than significant*.

4.14.2 Sewer System

■ Existing Conditions

The following information summarizes as much of the information for each service provider as was available during the preparation of this document. Therefore, the type and detail of information for each service provider differs.

Service Providers

Wastewater service within the Planning Area is provided by the City, Irvine Ranch Water District (IRWD), and Costa Mesa Sanitation District (CMSD). Similar to the boundaries of the City’s potable water system, the City provides sewer service to most of the Planning Area, for a total service area of approximately 13.5 square miles, as illustrated in Figure 4.14-2.¹⁰⁸

¹⁰⁸ City of Newport Beach, Master Plan of Sewers, 1996.

The IRWD boundaries encompass nearly 85,019 acres, or 133 square miles, in southern central Orange County. IRWD is responsible for serving the southeastern portion of the Planning Area, which includes the areas of Newport Coast and Newport Ridge. In addition, IRWD serves a contiguous portion of land that parallels SR-73 at the northern boundary of the Planning Area. IRWD's service area within the Planning Area is approximately nine square miles, accounting for approximately six percent of IRWD's total service boundaries.

The CMSD boundaries encompass all of the City of Costa Mesa and portions of Newport Beach and unincorporated Orange County for a total service area of approximately 19 square miles. CMSD serves small portions of the western boundary of the Planning Area, also shown in Figure 4.14-2. CMSD serves approximately less than one-half square mile within the Planning Area, which accounts for approximately two percent of CMSD's total service boundaries.¹⁰⁹

Treatment System

City of Newport Beach

Wastewater from the City's sewer system is treated by the Orange County Sanitation District (OCSD). The OCSD is responsible for safely collecting, treating, and disposing the wastewater generated by 2.3 million people living in a 470-square-mile area of central and northwest Orange County. The two sewage water treatment plants operated by the OSCD include Treatment Plant No. 2 in Huntington Beach, and Reclamation Plant No. 1 in Fountain Valley.

A majority of the City's sewage flow is pumped to the OCSD Plant No. 2, while flows from the portion of the City north of the Corona del Mar (73) Freeway are pumped to Plant No. 1.¹¹⁰ The OCSD Reclamation Plant No. 1 currently maintains a design capacity of 174 million gallons per day (mgd) and treats an average of 90 mgd. Treatment Plant No. 2 maintains a design capacity of 276 mgd and currently treats on average a flow of 153 mgd. Currently Plant No. 1 and Plant No. 2 are operating at 52 percent and 55 percent of design capacity, respectively.¹¹¹ The OCSD wastewater treatment plants are divided into several operating systems that work together. The major processes are preliminary treatment, primary treatment, anaerobic digestion, secondary treatment, and solids handling.¹¹²

Wastewater treated by the OCSD is discharged into the ocean through a 120-inch-diameter ocean outfall pipe that extends five miles offshore to a discharge point 180 feet below the ocean surface.¹¹³ The treatment levels meet all current State and Federal requirements. OCSD also reclaims up to 10 million gallons of treated wastewater every day, which is sent for further processing and then used for landscape irrigation and for injection into the groundwater seawater intrusion barrier.

¹⁰⁹ Costa Mesa Sanitary District, Administration, Assistant Manager, personal communication, January 27, 2004.

¹¹⁰ City of Newport Beach, Master Plan of Sewers, 1996.

¹¹¹ City of Huntington Beach, Lowe's Home Improvement Warehouse/Northeast Corner of Beach and Warner Project EIR (http://www.ci.huntington-beach.ca.us/files/users/planning/IV_L_3_UTILS_Sewer.pdf), 2003.

¹¹² Orange County Sanitation District, Treating Wastewater, Webpage: http://www.ocsd.com/info/treating_wastewater/default.asp, 2004.

¹¹³ City of Newport Beach, Urban Water Management Plan, 2000.

Irvine Ranch Water District

Flows from the IRWD wastewater system are treated at the OCSD Reclamation Plant No. 1, Treatment Plant No. 2, or at the Michelson Water Reclamation Plant (MWRP) located in Irvine. The nominal, dry weather treatment capacity of the Michelson Water Reclamation Plant is 18.0 mgd. In 2005, average effluent flow into the plant was 13.5 mgd because of denitrification of the reclaimed water, thus, the plant was operating at approximately 75 percent of design capacity.¹¹⁴ The District is currently in the process of adding an additional clarifier to return the MWRP to its full capacity. Wastewater collected at the plant undergoes tertiary treatment, which is commonly defined as advanced cleaning that goes beyond the secondary or biological stage, removing nutrients such as phosphorus, nitrogen, and most biological oxygen demand and suspended solids

Costa Mesa Sanitary District

CMSD sewer lines are tributary to the OCSD treatment plants, and thus, similar to the City, wastewater from the CMSD system is treated by the OCSD.¹¹⁵ See the above referenced discussion for additional information regarding the OCSD treatment system.

Collection System

City of Newport Beach

The existing collection system for the City of Newport Beach consists of over 200 miles of gravity and force flow sewer mains, varying in size from 2 to 42 inches in diameter, also shown in Figure 4.14-2. Residential and commercial wastewater collected by the City's wastewater collection system is transported, using a system of 20 pump stations, for treatment to the OCSD.¹¹⁶ In addition, OCSD trunk sewers and force mains also receive sewage flows from Newport Beach sewers at many locations throughout the City.¹¹⁷ The OCSD trunk sewers, which vary in size from 18 to 42 inches in diameter, substantially reduce the size and number of sewers needed to be built and operated by the City. The OCSD also operates seven pump stations in the City of Newport Beach as follows:

- Bitter Point Pump Station (Service Area D0)
- Lido Pump Station (Service Area F0)
- 14th Street Pump Station (Service Area F0)
- A Street Pump Station (Service Area F0)
- Rocky Point Pump Station (Service Area G0)
- Bay Bridge Pump Station (Service Area L0)
- MacArthur Pump Station (Service Area M0)

¹¹⁴ Irvine Ranch Water District, Water Resources Master Plan., adopted 2000, most recently updated in 2003, p. 4-4.

¹¹⁵ Costa Mesa Sanitary District, Sewer System Management Plan, July 19, 2002.

¹¹⁶ City of Newport Beach, Draft Coastal Land Use Plan, 2003.

¹¹⁷ City of Newport Beach, Master Plan of Sewers, 1996.

Irvine Ranch Water District

The existing collection system for the IRWD sewer system consists of gravity and force flow sewer mains. The wastewater collected by the IRWD collection system from the Planning Area is delivered via a system of pump stations for treatment at the MWRP in Irvine, or the OCSD's Reclamation Plant No. 1 or No. 2.¹¹⁸

Costa Mesa Sanitation District

The existing collection system for the CMSD sewer system consists of sewer mains, manholes, laterals, pumping stations and pressurized sewer lines (force mains).¹¹⁹

Maintenance

City of Newport Beach

As part of the City's Sewer System Management Plan (SSMP), which covers the City's service area, the City's Utilities Department follows a defined Sewer Master Plan to replace or reline older wastewater lines.¹²⁰ The City also uses remote cameras in sewer lines to look for pipe cracks, root intrusion, and grease buildup to assist in prioritizing the line replacement program. In addition, the City's Sewer Master Plan includes upgrades of its pump stations, including replacing pump stations with gravity systems where possible to prevent plumbing failures associated with pump stations, which can result in sanitary sewer overflows (SSOs). The upgraded pump stations also include spill-warning systems with multiple communication methods (radio, telephone, pager, and direct line to the City's Utilities yard) to inform Utilities staff of any malfunction.

Irvine Ranch Water District

IRWD routinely monitors the wastewater that flows through its sewer system, watching for any illegal substances such as chemicals or improperly pre-treated industrial waste that could cause an upset of the delicate biological process used at the MWRP.¹²¹

Costa Mesa Sanitary District

Currently, the CMSD cleans the sewer system once a year, which is the industry standard for agencies with comprehensive sewer maintenance programs. Areas that need more frequent cleaning, also known as hot spots, are cleaned as frequently as once a week. The CMSD has two sewer cleaning trucks, each with a two-man crew that performs daily cleaning of the gravity sewer lines. In addition, the CMSD has a pumping station maintenance program.¹²²

¹¹⁸ Michael Hoolihan, Irvine Ranch Water District, personal communication, December 17, 2003.

¹¹⁹ Costa Mesa Sanitary District, Sewer System Management Plan, July 19, 2002.

¹²⁰ City of Newport Beach, Draft Coastal Land Use Plan, 2003.

¹²¹ Irvine Ranch Water District, website: <http://www.irwd.com:8090/waterquality/hmc.html>, accessed January 27, 2004.

¹²² Costa Mesa Sanitary District, Sewer System Management Plan, July 19, 2002.

Planned Improvements and Existing Deficiencies

City of Newport Beach

The Master Plan of Sewers, or the Plan, dated August 1996, identified portions of the City’s collection system that are in need of improvement or replacement. In accordance with the Plan, approximately 7,500 linear feet of sewers at four locations within the City were improved, consistent with the Priority “A” designation which required design and construction to commence within three years. In addition, approximately 3,100 linear feet of sewer on San Joaquin Hills Road and Marguerite were designed and constructed, consistent with their Priority “B” category in the Plan. Priority “C” projects were also identified that would be undertaken beyond seven years from the date of the Plan on an as-needed basis. The remaining sewer deficiencies within the City were further classified as Priority “D” projects, which would likely never be required despite their inability to meet strict theoretical design capacity requirements.

The City’s pumping system was also reviewed and was generally found to have adequate capacity. However, some pump cycling problems were identified that required operational adjustments. In addition, problems were also identified associated with aging pumping mechanical works, controls, and structures. The Master Plan of Sewers indicated that pump station upgrades would be required for a majority of the City’s pump stations, and would be considered as Priority “A” projects. Presently, the City has completed 16 out of 20 sewer lift stations, and the remaining stations to be rebuilt include: Collins Island, Diamond Street, Back Bay, and the Brent Tract.¹²³

The remaining sewer collection system deficiencies identified in the City by the Master Plan of Sewers are summarized below:

- Approximately 9,500 linear feet of 8- and 10-inch-diameter unlined concrete sewers that need to be replaced
- Approximately 6,300 linear feet of welded steel sewers that need to be replaced
- Manhole replacement at nineteen locations to enable proper maintenance procedures to be followed, and manhole replacements at an additional twenty-eight sites where gaseous conditions have corroded interior unlined manhole surfaces
- Approximately 1,000 feet of sewer with failed pipe joints that need to be repaired
- Approximately 10,600 linear feet of sewer in need of tree root removal

The Plan further recommended the implementation of a television inspection program that would involve video inspection of five to 10 percent of the sewage system per year, followed up by any required remedies.

Irvine Ranch Water District

IRWD recently prepared an Environmental Impact Report to increase the capacity of the MWRP to 33 mgd.

¹²³ Antista, Pete. 2006. Written communication via email with Utilities Director, City of Newport Beach. 20 March.

Costa Mesa Sanitary District

The CMSD Sewer Master Plan Update contains a list of each project identified as necessary to increase the capacity of portions of the system. Currently in CMSD's service area within the Planning Area, no improvements are required in the near future, and long-term improvements will be planned according to development and metered sewer flows.¹²⁴

■ Regulatory Setting

Federal Regulations

National Pollution Discharge Elimination System (NPDES) Permits

The NPDES permit system was established in the Clean Water Act (CWA) to regulate both point source discharges (a municipal or industrial discharge at a specific location or pipe) and nonpoint source discharges (diffuse runoff of water from adjacent land uses) to surface waters of the United States. For point source discharges, such as sewer outfalls, each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge.

Disposal of Biosolids

Title 40 of the Code of Federal Regulations (CFR) Part 503, Title 23 California Code of Regulations, and standards established by the CVRWQCB regulate the disposal of biosolids.

■ Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2005 CEQA Guidelines. For purposes of this EIR, implementation of the proposed project may have a significant adverse impact on the City's wastewater system if it would result in any of the following:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board
- Require or result in the construction/expansion of wastewater treatment facilities or recycled water conveyance systems that could cause significant environmental effects

■ Project Impacts, Mitigation Measures, and Proposed Policies

Effects Not Found to Be Significant

The IS/NOP prepared for the proposed project did not identify any effects not found to be significant associated with wastewater service. Therefore, all thresholds are addressed in this section.

¹²⁴ Costa Mesa Sanitary District, Sewer System Management Plan, July 19, 2002, page 31.

Project Impacts

Threshold	Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
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Implementation of the proposed General Plan Update would not exceed wastewater treatment requirements of the Regional Water Quality Control Board.

The City of Newport Beach requires NPDES permits, as administered by the Regional Water Quality Control Board (RWQCB), according to Federal regulations for both point source discharges (a municipal or industrial discharge at a specific location or pipe) and nonpoint source discharges (diffuse runoff of water from adjacent land uses) to surface waters of the United States. For point source discharges, such as sewer outfalls, each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge.

New development under implementation of the proposed General Plan Update would continue to comply with all provisions of the NPDES program, as enforced by the RWQCB. Therefore, the proposed General Plan Update would not result in an exceedance of wastewater treatment requirements. Additionally, the NPDES Phase I and Phase II requirements would regulate discharge from construction sites. All future projects under the proposed General Plan Update would be required to comply with all applicable wastewater discharge requirements issued by the State Water Resources Control Board (SWRCB) and RWQCB. Therefore, implementation of the proposed General Plan Update would not exceed applicable wastewater treatment requirements of the RWQCB with respect to discharges to the sewer system or stormwater system within the City. The proposed General Plan Update specifies minimal adverse effects to water quality from sanitary sewer outflows as a goal. Specifically, Policy NR 3.5 requires all development to comply with the regulations under the City's municipal separate storm sewer system permit under NPDES; Policy NR 3.7 directs the City to support and participate in watershed-based runoff reduction, water quality control, and other planning efforts with the RWQCB; Policy NR 3.8 directs the City to update and enforce the Newport Beach Water Quality Ordinance; Policy NR 5.1 requires implementation of the Sewer System Management Plan and the Sewer Master Plan; Policy NR 5.2 requires waste discharge permits for all food preparation facilities that produce grease; and Policy NR 5.4 requires compliance with the RWQCB's Waste Discharge Requirements associated with the operation and maintenance of the City's sewage collection system. Consequently, because future development under the proposed General Plan Update would be required to adhere to existing regulations and the proposed policies identified above, *no impact* would result.

Threshold	Would the project require the construction or expansion of wastewater treatment facilities or conveyance systems that could cause significant environmental effects?
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Impact 4.14.2-1 Development associated with the proposed General Plan Update could increase sewer demand but would not exceed the capacity of existing wastewater treatment facilities.

Implementation of the proposed General Plan Update would generate additional demand on the existing sewer system from increased sewage flows. New residential growth would generate wastewater that would require treatment. As described in the Existing Conditions section, wastewater service within the Planning Area is provided by the City, IRWD, and CMSD. Wastewater from the City's system and CMSD is treated by the OCSO at their two treatment plants. The OCSO Treatment Plant No. 1 currently maintains a design capacity of 174 mgd and treats on average a flow of 90 mgd. Treatment Plant No. 2 maintains a design capacity of 276 mgd and currently treats on average a flow of 153 mgd. Currently Plant No. 1 and Plant No. 2 are operating at 52 percent and 55 percent of design capacity, respectively. Flows from the IRWD wastewater system are treated at the OCSO Reclamation Plant No. 1, Treatment Plant No. 2, or at the Michelson Water Reclamation Plant (MWRP) located in Irvine, which is currently in the process of adding an additional clarifier to return the MWRP to its full capacity at 18 mgd. Therefore, each of the treatment plants serving the City is operating below their design capacity.

Under development of the proposed General Plan Update, the number of housing units could increase by approximately 14,215 units; commercial, visitor serving, and institutional uses would also increase, while industrial uses would decrease compared to existing conditions. Based on sewer flow generation factors provided in the Newport Beach Master Plan of Sewers, as shown below in Table 4.14-12, this increased development under the proposed General Plan Update is anticipated to generate an estimated additional wastewater flow of 4,123,173 gpd (4.12 mgd) within the City.

Table 4.14-12 Projected Wastewater within the City

<i>Type of Land Use</i>	<i>Estimated Potential New Development</i>	<i>Sewer Generation Factor</i>	<i>Additional Projected Wastewater (gpd)</i>
Single-Family Residential	1,700 units	370 gpd/du	629,000
Multi-Family Residential	12,515 units	213 gpd/du	2,665,695
Commercial	1,851,122 sf	200 gpd/1,000 sf	370,224
Visitor Serving (hotel)	3,184 rooms	150 gpd/room	477,600
Industrial	-405,769 sf	60 gpd/1,000 sf	-24,346
Institutional ^a	120,343 sf	n/a	n/a
Schools	500 students	10 gpd/student	5,000
Parks ^a	55.4 acres	n/a	n/a
Total			4,123,173

SOURCE: Sewer Generation Factors based upon the City of Newport Beach, Master Plan of Sewers, August 1996.

^a The Master Plan of Sewers does not contain generation rates for institutional or park uses.

The additional 4.12 mgd of wastewater would be distributed between OCSD Treatment Plant No. 1 and Treatment Plant No. 2. Each of these plants has the capacity to treat the full increase in sewage from the proposed General Plan Update. To illustrate the most conservative analysis, if the entire City's sewage went to Treatment Plant No. 1, its average flow would increase to approximately 94 mgd, an increase of 4.8 percent, and the plant would still operate at approximately 54 percent of its design capacity. If the entire City's sewage were directed to Treatment Plant No. 2, its average flow would increase to approximately 157 mgd, an increase of 2.8 percent, and the plant would operate at 57 percent of its design capacity. Because increased wastewater due to implementation of the proposed General Plan Update could be accommodated within the existing treatment infrastructure, expansion would not be required.

In addition, policies under the proposed General Plan Update require the renovation of all older sewer pump stations and the installation of new plumbing according to most recent standards, and implementation of the Sewer System Management Plan and Sewer Master Plan. Implementation of the proposed General Plan Update policies requires adequate wastewater facilities and conveyance systems to be available to the City residents. Therefore, impacts to the wastewater treatment facilities associated with increased growth in the City would be *less than significant*.

Impact 4.14.2-2 Increased development could increase the demand for recycled water that could result in the construction of new or expansion of existing conveyance systems.

Increased development and growth under the proposed General Plan Update is expected to increase water demands substantially in the future. As described in the Existing Conditions section, OCSD reclaims up to 10 million gallons of treated wastewater every day, which is sent for further processing and then used for landscape irrigation and for injection into the groundwater seawater intrusion barrier. As discussed in the Water Supply section above, the City annually purchases between 300 and 800 AFY, or approximately 98 to 261 MG, of recycled water from the Orange County Water District (OCWD). According to the City's 2005 Urban Management Plan, the City has investigated future sites or locations for reclaimed water, but there are limitations to the availability of reclaimed connections. The City is investigating the possibility of inter-district reclaimed water transfers to provide reclaimed water to some homeowner associations and recreation facilities.

The City currently serves approximately 1,200 AFY of irrigation demand using potable water. However, in most cases these demands are located a long distance from the existing recycled system such that it is not cost effective to construct additional connections to the system. Currently, reclaimed water makes up 20 percent of IRWD's total water supply. Reclaimed water is currently used for toilet flushing in select facilities, approximately 1,000 acres of fields and orchards, and is also used to irrigate landscapes including parks, schools, golf courses, streetscapes, and open space managed by many community associations. In addition, many water features such as fountains are filled with reclaimed water.

The proposed General Plan Update Policy NR 2.1 encourages the use of recycled water in the City by continuing to provide financial incentives, staff assistance, and training opportunities for customers, and expanding recycled water infrastructure and programs, when feasible. If expansion or creation of new

recycled water infrastructure is necessary, further environmental review would be required when specific details are known regarding the infrastructure. This ensures that associated environmental effects would be determined prior to implementation. Thus, impacts associated with the construction of new recycled water conveyance systems within the City would be *less than significant*.

Cumulative Impacts

The geographic context for the analysis of cumulative impacts associated with sewage treatment systems and recycled water conveyance systems would be the wastewater service providers' areas for the Planning Area.

Currently, the City of Newport Beach, IRWD, and CMSD provide wastewater infrastructure to the Planning Area. OCSD provides regional wastewater treatment service and the providers listed above utilize OCSD facilities for the treatment of wastewater collected with their infrastructure. Development of cumulative projects within the wastewater service providers' areas, including the proposed project, would generate additional quantities of wastewater, depending on net increases in population, square footage, and intensification of uses. Cumulative projects would contribute to the overall regional demand for wastewater treatment service.

The design capacities of the wastewater treatment facilities are based on the regional growth forecast adopted by SCAG, which in turn is based on cities' general plans and other forecasts of SCAG's member cities. Although the proposed project is not included within SCAG's growth forecast, the existing treatment plants operate well below their design capacity. Thus, it is anticipated that cumulative development would not exceed the capacity of the wastewater treatment system. This cumulative impact is considered *less than significant*. The City would continue to implement water conservation measures that would result in a decrease in wastewater generation, and each of the wastewater treatment plants would still have excess capacity. Consequently, the proposed General Plan Update would not result in a cumulatively considerable contribution to an impact on wastewater treatment. The cumulative impact of the project would be *less than significant*.

Cumulative growth in the wastewater service providers' areas could result in the need for additional wastewater conveyance infrastructure, which could result in significant cumulative impacts depending upon the nature and extent of the proposed improvements. However, any person connecting to the sewer system is required to pay connection fees in accordance with existing regulations. Existing regulations ensure that all users pay their fair share for any necessary expansion of the system, including expansion to wastewater treatment facilities and would ensure that the cumulative impact is less than significant. Therefore, the project's cumulative impact would be *less than significant*.

Proposed General Plan Update Policies

Implementation of policies within the Land Use and Natural Resources Elements of the proposed General Plan Update would further reduce impacts associated with sewer services. The policies that would reduce impacts to sewer services are included below.

Land Use Element

Goal LU 2 A living, active, and diverse environment that complements all lifestyles and enhances neighborhoods, without compromising the valued resources that make Newport Beach unique. It contains a diversity of uses that support the needs of residents, sustain and enhance the economy, provide job opportunities, serve visitors that enjoy the City's diverse recreational amenities, and protect its important environmental setting, resources, and quality of life.

Policy LU 2.8 Adequate Infrastructure

Accommodate the types, densities, and mix of land uses that can be adequately supported by transportation and utility infrastructure (water, sewer, storm drainage, energy, and so on) and public services (schools, parks, libraries, seniors, youth, police, fire, and so on).

Goal LU 3 A development pattern that retains and complements the City's residential neighborhoods, commercial and industrial districts, open spaces, and natural environment.

Policy LU 3.2 Growth and Change

Enhance existing neighborhoods, districts, and corridors, allowing for re-use and infill with uses that are complementary in type, form, scale, and character. Changes in use and/or density/intensity should be considered only in those areas that are economically underperforming, are necessary to accommodate Newport Beach's share of projected regional population growth, improve the relationship, and reduce commuting distance between home and jobs, or enhance the values that distinguish Newport Beach as a special place to live for its residents. The scale of growth and new development shall be coordinated with the provision of adequate infrastructure and public services, including standards for acceptable traffic level of service.

Natural Resources Element

Water Supply

Goal NR 2 Expanded use of alternative water sources to provide adequate water supplies for present uses and future growth.

Policy NR 2.1 Recycled Water Use

Increase the use of recycled water in the City by continuing to provide financial incentives, staff assistance, and training opportunities for customers, and expand recycled water infrastructure and programs, when feasible.

Policy NR 2.2 Advanced Water Treatment Processes

Use alternative water sources for the City's water supply by implementing advanced water treatment processes such as brackish groundwater and seawater desalination programs, when feasible.

*Water Quality***Goal NR 3 Enhancement and protection of water quality of all natural water bodies, including coastal waters, creeks, bays, harbors, and wetlands. (Goal HB8)****Policy NR 3.5 Storm Sewer System Permit**

Require all development to comply with the regulations under the City's municipal separate storm sewer system permit under the National Pollutant Discharge Elimination System. (Policy HB8.5)

Policy NR 3.7 Watershed Runoff Quality Control

Support and participate in watershed-based runoff reduction, water quality control, and other planning efforts with the California Regional Water Quality Control Board (RWQCB), the County of Orange, and upstream cities. (Policy HB8.7)

Policy NR 3.8 Newport Beach Water Quality Ordinance

Update and enforce the Newport Beach Water Quality Ordinance. (Policy HB8.8)

Policy NR 3.12 Site Design and Source Control

Include site design and source control BMPs in all developments. When the combination of site design and source control BMPs are not sufficient to protect water quality as required by the National Pollutant Discharge Elimination System (NPDES), structural treatment BMPs will be implemented along with site design and source control measures. (Policy HB8.12)

Policy NR 3.16 Street Drainage Systems

Require all street drainage systems and other physical improvements created by the City, or developers of new subdivisions, to be designed, constructed, and maintained to minimize adverse impacts on water quality. Investigate the possibility of treating or diverting street drainage to minimize impacts to water bodies. (Policy HB8.16)

Goal NR 4 Maintenance of water quality standards through compliance with the total maximum daily loads (TMDLs) standards.

Policy NR 4.1 Total Maximum Daily Loads

Develop and implement the TMDLs established by the RWQCB, Santa Ana Region and guided by the Newport Bay Watershed Executive Committee (WEC).

Goal NR 5 Sanitary Sewer Outflows—Minimal adverse effects to water quality from sanitary sewer outflows.

Policy NR 5.1 City Sewer Management and Master Plans

Implement the Sewer System Management Plan and the Sewer Master Plan.

Policy NR 5.2 Waste Discharge Permits

Require waste discharge permits for all food preparation facilities that produce grease.

Policy NR 5.3 Sewer Pump Stations

Renovate all older sewer pump stations and install new plumbing according to most recent standards.

Policy NR 5.4 Waste Discharge Permits

Comply with the RWQCB's Waste Discharge Requirements (WDRs) associated with the operation and maintenance of the City's sewage collection system.

■ Mitigation Measures

No mitigation measures are necessary, as the proposed General Plan Update policies fully mitigate the impacts.

Level of Significance after Policies/Mitigation Measures

Impacts associated with the sewer system and recycled water infrastructure would be *less than significant*. In addition, cumulative impacts associated with the sewer system and recycled water infrastructure would also be *less than significant*.

4.14.3 Solid Waste

This section describes existing solid waste management and resource recovery systems for the Newport Beach Planning Area. In addition, a discussion of current local and regional policies regarding the collection and disposal of solid waste is provided. Information for this section is based on the City's

Resource Allocation Plan, Source Reduction and Recycling Element, data from the Integrated Waste Management Board, and conversations with City staff.

■ Existing Conditions

As discussed in more detail below, the majority of residential solid waste generated in the City of Newport Beach is collected by the City's Refuse Division and the remaining solid waste is collected by waste haulers and transported to a City-owned transfer station. Refuse is then consolidated and transported to a materials recovery facility where recyclable materials are then sorted from refuse by machines and other methods. The remaining solid waste is then taken to one of three County landfills. Details regarding waste haulers, transfer stations, recycling facilities, and landfills are provided below.

Solid Waste Haulers

Newport Beach Municipal Code 12.63.030 states that no person shall provide commercial solid waste handling services or conduct a solid waste enterprise in the City without having been awarded an exclusive franchise and entered into an agreement with the City. As part of its franchise agreement, all solid waste haulers that serve the City are prohibited from transporting any waste, residential, commercial, or industrial, outside of County limits.¹²⁵

The Refuse Division of the City General Services Department collects refuse from single-family homes and some multi-family complexes within the City, with the exception of Newport Coast.¹²⁶ The remaining residential and all commercial refuse is collected by eight licensed and franchised commercial solid waste haulers, and include the following:

- Federal Disposal in Santa Ana
- Rainbow Disposal in Huntington Beach
- CR&R in Stanton
- Ware Disposal in Newport Beach
- Briggeman Disposal Services in Anaheim
- Waste Management of Orange County in Santa Ana
- Key Disposal in Montebello
- EZ Disposal in Fountain Valley

There are a number of licensed and franchised construction and demolition debris solid waste haulers that also serve the City. These include the following:

- American Wrecking, Inc. in South El Monte
- Greenleaf Grading company in Huntington Beach
- Kevin Ray Demolition in Brea
- The Lane Company in Santa Ana
- Tight Quarters, Inc. in Santa Ana
- West Coast Land Clearing , Inc. in Long Beach
- Cousyn Grading and Demolition in Costa Mesa

¹²⁵ Jeremy Hammond, personal communication, September 24, 2003

¹²⁶ Jeremy Hammond, personal communication, September 16, 2003

- Roche Excavating in Santa Ana
- Tim Greenleaf Engineering in Huntington Beach
- Southern California Environmental in Lake Forest
- Pacific Earthworks in Dana Point
- Trojan Portable Services in Los Angeles
- Thomas Demolition in Lawndale (Newport Beach, General Services website, 2003, 16 September)

Transfer Stations

Transfer stations are facilities where trash is sorted from recyclable materials, and the residue is then transported to landfills that serve the residents of the County of Orange. There are six active, large volume transfer processing facilities that serve the City. All are sorting and recycling facilities, with the exception of the City of Newport Beach Transfer Station, and include the following:

- Stanton Transfer and Recycling Center #8 11232 Knott Avenue, Stanton, CA 90680
- Rainbow Recycling/Transfer Station 17121 Nichols Street, Huntington Beach, CA 92647
- Consolidated Volume Transporters 1131 Blue Gum Street, Anaheim, CA 92806
- Sunset Environmental Inc. Transfer Station and Resource Recycling Facility 16122 Construction Circle West, Irvine, CA 92606
- Waste Management of Orange (Owner of the Sunset Environmental Transfer Station) 2050 North Glassell, Orange, CA 92865
- City of Newport Beach Transfer Station 592 Superior Avenue, Newport Beach, CA 92663

■ Landfills

Presently, it is anticipated that the Orange County landfill system will have adequate capacity to operate until 2035. The Orange County Integrated Waste Management Department (IWMD) presently owns and operates three active landfills, including: Frank R. Bowerman Landfill in Irvine; Olinda Alpha Landfill in Brea; and Prima Deshecha Landfill in San Juan Capistrano. All three landfills are permitted as Class III landfills and have a combined design capacity of over 20,000 tons per day. Class III landfills accept only non-hazardous municipal solid waste for disposal; no hazardous or liquid waste can be accepted (OCIWMD 2006). Table 4.14-13 shows the existing capacities of each of these landfills, as well as their anticipated closure dates and annual usage.

Table 4.14-13 Landfill Capacity

<i>Landfill</i>	<i>Location</i>	<i>Current Remaining Capacity (Tons)</i>	<i>Maximum Capacity (Tons)</i>	<i>Estimated Close Date</i>	<i>Maximum Daily Load (tons)</i>	<i>Annual Usage (tons)</i>
Frank R. Bowerman	11002 Bee Canyon Access Road Irvine, CA 92602	44,560,000	81,600,000	2022	8,500	2,332,576
Olinda Alpha	1942 North Valencia Avenue Brea, CA 92823	19,730,000	53,000,000	2013	8,000	2,069,835
Prima Deshecha	32250 La Pata Avenue San Juan Capistrano, CA 92675	78,600,000	89,400,000	2067	4,000	814,488

SOURCE: CIWMB 2006; OC IWMD, personal communication, March 17, 2006.

Currently only the Frank R. Bowerman Sanitary Landfill, located at 11002 Bee Canyon Access Road in Irvine, serves the City of Newport Beach. Closure is currently estimated at year 2022; however, IWMD is preparing an EIR to expand the landfill and extend its closure date to 2053. At approximately 725 acres in size, this landfill has 341 acres that are used for waste disposal. The permitted daily tonnage limit for the Bowerman Landfill is 8,500 tons per day of refuse except for 36 days per year that a higher tonnage of 10,625 tons per day is allowed. If the expansion is approved, the landfill would accept 11,500 tons per day.¹²⁷

The California Integrated Waste Management Board (CIWMB) requires that all counties have an approved Countywide Integrated Waste Management Plan (CIWMP). To be approved, the CIWMP must demonstrate sufficient solid waste disposal capacity for at least 15 years, or identify additional available capacity outside of the County's jurisdiction. To this end, the Regional Landfill Options for Orange County (RELOOC) program, a 40-year strategic plan being prepared by the IWMD, was created. RELOOC evaluates options for trash disposal for Orange County citizens and to ensure that waste generated by the County is safely disposed of and that the County's future disposal needs are met (OCIWMD 2006).

Waste Stream Diversion

In 2002, which represents the most recent data available that has been approved by the CIWMB, the City of Newport Beach maintained a 52 percent diversion rate from the Orange County landfills, which meets the AB939 requirement of 50 percent diversion of solid waste by the Year 2000 (CIWMB 2006). The City has one composting facility, five recycling programs, and six programs specializing in source reduction.

Waste Reduction Programs

Recycling Programs

Newport Beach recycled over 25 percent of its residential waste stream in 2002, which represents the most recent data available that has been approved by the CIWMB, as well as 100 percent of the concrete, asphalt, and green and brown wastes generated by City operations. The City recycling program is part of the waste collection process. All residential wastes are collected together. Since the early 1990's the City has partnered with CR&R to recycle the City's residential waste. Following collection, the waste is transferred by trailer truck to a materials recovery facility in Stanton where the recyclables are extracted from the waste stream manually and mechanically. This process eliminates the need for additional containers and separate collection pick-ups.¹²⁸

The City's nonexclusive solid waste franchise program requires all commercial haulers to recycle at least 50 percent of the waste they collect from Newport Beach. The City's landscape, turf maintenance, and

¹²⁷ County of Orange Integrated Waste Management, John Arnau, Planner 3, written communication, October 28, 2005.

¹²⁸ City of Newport Beach website, 2006.

tree trimming contractors are also required to recycle 100 percent of the waste generated from their operations. The City purchases compost and mulch made from these recycled materials.

Beverage Container Recycling

The Department of Conservation, Division of Recycling administers the California Beverage Container Recycling and Litter Reduction Act enacted in 1986. It provides a number of services to achieve those goals, including enforcement, auditing, grant finding, technical assistance, and education. Consumers pay CRV (California Refund Value) when they purchase beverages from a retailer reimbursed when they redeem the container at a recycling center. The following facilities operate CRV redemption centers:

- Ralph's, 2555 Eastbluff Drive, Newport Beach, CA 92660
- Vons, 185 E. 17th Street, Costa Mesa, CA 92627
- Ralph's, 380 E. 17th Street, Costa Mesa, CA 92627
- ASOCC Recycling Center, 2701 Fairview Boulevard, Costa Mesa, CA 92626

Used Oil and Oil Filters

The City has obtained a used oil-recycling grant. The funds are used to provide oil-recycling options to local residents. The General Services Department Administrative Division oversees the recycling of these materials, and can direct residents to one of six local drop sites in the City listed below:

- Superformance, 3767 Birch Street, Newport Beach, CA 92660
- Newport Coast Chevron, 1550 Jamboree Road, Newport Beach, CA 92660
- Jiffy Lube, 1520 W. Coast Hwy., Newport Beach, CA 92663
- Graham's 76, 2690 San Miguel, Newport Beach, CA 92660
- Newport Landing Fuel Dock, 503 E. Edgewater, Newport Beach, CA 92661
- Grease Monkey, 2230 S.E. Bristol, Newport Beach, CA 92660

Household Hazardous Waste Programs

There are a number of household hazardous waste collection centers (HHWCC) in Orange County where residents can safely dispose of materials such as paint, wood preservatives, batteries, auto products, motor antifreeze, household chemicals, and other hazardous substances. These include the Huntington Beach Regional HHWCC, located at 17121 Nichols in Huntington Beach, the Anaheim Regional HHWCC, located at 10710 North Blue Gum Street, the San Juan Capistrano Regional HHWCC, located at 32250 La Pata Avenue, and the Irvine Regional HHWCC at 6411 Oak Canyon in Irvine. Generation Rates

According to the City's Source Reduction and Recycling Element, which analyzes all solid waste in the City, the residential waste stream composes 19.4 percent of the total waste stream while the industrial and commercial sector each account for 40.3 percent of the waste stream.¹²⁹

The City uses the following generation rates for solid waste:¹³⁰

¹²⁹ Jeremy Hammond, personal communication, October 8, 2003.

¹³⁰ John Arnau, personal communication, October 28, 2005.

1. Commercial daily disposal (lbs. per employee per day)—10.53
2. Residential daily disposal (lbs. per unit per day—single-family residential)—12.23
3. Residential daily disposal (lbs. per unit per day—multiple-family residential)—6.41
4. Industrial daily disposal (lbs. per square foot per day)—007
5. Office daily disposal (lbs. per 100 square foot per day)—1
6. Hotel daily disposal (lbs. per room per day)—2.5

Improvements to Solid Waste Facilities

All future facilities expansion is currently dependent upon the “Regional Landfill Options for Orange County” (RELOOC) Study being undertaken by the Orange County Integrated Waste Management Department (IWMD). RELOOC is a 40-year strategic plan that will examine options for trash disposal in Orange County. The IWMD is in the process of conducting the environmental review of the RELOOC Strategic Plan as directed by the Board of Supervisors on May 21, 2002. The RELOOC program was created to ensure that the waste generated by the County is properly disposed of and that the County’s future disposal needs can be adequately met. The stated goals of RELOOC are as follows:¹³¹

To have a feasible, balanced, and flexible 40-year strategic plan approved and ready for implementation by 2004 that addresses Orange County’s solid waste disposal and capacity needs

- To protect Orange County’s public health, safety, and environment
- To sustain the economic vitality of the Orange County’s solid waste disposal system by ensuring consistent and reliable features and adequate revenue to maintain efficient, cost effective, and high quality operations
- To provide a fair, objective, open planning process that is presented in nontechnical, easily understood terms, responsive to and involves stakeholders and the public, and results in public understanding

Regulatory Context

Federal

With the exception of determining where disposal sites are located and operational standards, there are no applicable Federal laws, regulations, or policies that pertain to solid waste.

State

At the State level, the management of solid waste is governed by regulations established by the California Integrated Waste Management Board (CIWMB), which delegates local permitting, enforcement, and inspection responsibilities to local enforcement agencies. In 1997, some of the regulations adopted by the State Water Quality Control Board (SWQCB) pertaining to landfills (Title 23, Chapter 15) were

¹³¹ IWMB website, February 21, 2006.

incorporated with CIWMB regulations (Title 14) to form Title 27 of the California Code of Regulations (CCR).

Assembly Bill 939

The State Legislature, through Assembly Bill 939, The California Integrated Waste Management Act of 1989, mandated that all cities and counties prepare, adopt, and submit a comprehensive solid waste management plan to the county. The plan must address and detail each individual community's efforts and intended policies in the areas of waste characterization, source reduction, recycling, composting, solid waste facilities, education/public information, funding, special wastes, and hazardous wastes. The law also mandates that communities meet certain specific identified targets for percentages of waste reduction and recycling over specific identified targets for percentages of waste reduction and recycling over specified time periods (25 percent by 1995 and 50 percent by the year 2000.)

Public Resources Code §§ et seq.—California Integrated Waste Management Act

In 1989, the Legislature adopted the *Integrated Waste Management Act of 1989*, which established an integrated waste management hierarchy that consists of the following in order of importance: source reduction, recycling, composting, and land disposal of solid waste. The law also required that each county prepare a new Integrated Waste Management Plan. The Act further required each city to prepare a Source Reduction and Recycling Element (SRRE) by July 1, 1991. Each source reduction element includes a plan for achieving a solid waste goal of 25 percent by January 1, 1995, and 50 percent by January 1, 2000. Recently, a number of changes to the municipal solid waste diversion requirements under the *Integrated Waste Management Act* were adopted, including a revision to the statutory requirement for 50 percent diversion of solid waste. Under these provisions, local governments shall continue to divert 50 percent of all solid waste on and after January 1, 2000.

Local Regulations

City of Newport Beach Municipal Code

In order to fulfill the requirements of the State mandate, the City of Newport Beach has a number of City ordinances related to solid waste management. The City Municipal Code, Section 12.63.030, requires businesses that provide commercial solid waste handling services in City limits to obtain a franchise in order to operate. The ordinance states that because State law requires the City to substantially reduce the amount of solid waste it sends to landfills, and the City is required to report to the State the amount of materials diverted from landfills in compliance with State law, the City must be able to regulate the collection of solid waste from residential and commercial premises through the requirements of a franchise.

Section 20.60.090 of the City Municipal Code contains an ordinance on recyclable materials. This section establishes a comprehensive set of regulations and guidelines regarding the requirement for specific areas for collecting and loading recyclable materials in certain developments in the City.

■ Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2005 CEQA Guidelines. For purposes of this EIR, implementation of the proposed project may have a significant adverse impact on solid waste service if it would result in any of the following:

- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs
- Fail to comply with applicable Federal, State, and local statutes and regulations related to solid waste

■ Project Impacts, Mitigation Measures, and Proposed Policies

Effects Not Found to Be Significant

The IS/NOP prepared for the proposed project did not identify any effects not found to be significant associated with solid waste service. Therefore, all thresholds are addressed in this section.

Project Impacts

Threshold	Would the project be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?
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Impact 4.14.3-1 Implementation of the proposed General Plan Update could result in insufficient landfill capacity to accommodate the increased demand for solid waste service provided to the Planning Area.

Currently, only the Frank R. Bowerman Sanitary Landfill services the City of Newport Beach, as described in the Existing Conditions section above. IWMD has plans to expand this landfill and extend the closure date from 2022 to approximately 2053. Should the expansion be approved, the landfill will accept 11,500 tons per day, but currently accepts 8,500 per day except for 36 days per year that a higher tonnage of 10,625 tons per day is allowed (annual acceptance of approximately 3,179,000 tons.)

New residential uses under implementation of the proposed General Plan Update would increase the population in the Planning Area. In total, approximately 14,215 additional residential units could be built within the Planning Area. Commercial uses could increase by 2,145,642 sf and office uses could increase by approximately 250,673 sf. As discussed in Section 4.10 (Population and Housing) of this EIR, implementation of the General Plan Update would result in a population increase of approximately 31,131 residents. This increase would result in a total citywide population of 103,753 persons at buildout of the proposed General Plan Update, which would represent an approximately 43 percent increase in population over the 2002 population, and an approximately 37 percent increase in population over 2005 existing conditions.

In addition, this increase in growth and development as a result of the proposed General Plan Update would result in an increase of solid waste stream to the landfill, and increased demand for solid waste

services throughout the City. This analysis is based on solid waste generation rates utilized by the City of Newport Beach, as illustrated below in Table 4.14-4. Development under the proposed General Plan Update could result in an additional 21,659.10 tons per year of solid waste to be disposed of at the Frank R. Bowerman Sanitary Landfill, representing approximately 0.68 percent of the amount of solid waste the landfill is allowed to accept annually.

Table 4.14-14 Estimated Increase of Solid Waste Generation			
<i>Land Use</i>	<i>Potential New Development</i>	<i>Solid Waste Generation Rate</i>	<i>Solid Waste Generation (lbs/day)</i>
Residential—MFR	12,515 units	6.41 lbs/unit/day	80,221.15
Residential—SFR	1,700 units	12.23 lbs/unit/day	20,791
Commercial	2,145,642 sq ft	5 lbs/1000sqft/day*	10,728.21
Industrial	(-)405,769 sq ft	.007 lbs/sf/day	(-)2,840.38
Office	70,673 sf	1 lb/100sf/day	706.73
Visitor Serving	3,184 rooms	2.5 lbs/room/day	7,960
Institutional	158,593 sf	.007 lbs/sf/day*	1,110.15
TOTAL			118,677 lbs/day (59.34 tons/day) (21,659.10 tons/year)

SOURCE: John Arnau, personal communication, October 28, 2005.

*Integrated Waste Management Board, at www.ciwmb.ca.gov

1 ton [short, US] = 2 000 pound

A different commercial solid waste generation rate was used (compared to the City's) because the proposed General Plan Update is based on permitted square footage, not anticipated employees.

With the remaining capacity of approximately 44.6 million tons, as well as a 16-year lifespan at the Frank R. Bowerman Sanitary Landfill without the proposed expansion, the increase in solid waste generated by the development under the proposed General Plan Update would not exceed capacity of the landfill. In addition, AB 939 mandates the reduction of solid waste disposal in landfills. Consequently, this analysis assumes a worst-case scenario, as it is anticipated that at least approximately 50 percent of the estimated increase in solid waste generation could be diverted (or approximately 10,830 tons/year). Therefore, as the Frank R. Bowerman Sanitary Landfill would have sufficient capacity to serve the increased development within the City under the proposed General Plan Update, impacts would be *less than significant*.

Threshold	Would the project fail to comply with applicable Federal, State, and local statutes and regulations related to solid waste?
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Implementation of the proposed General Plan Update would not comply with all applicable Federal, State, and local statutes and regulations related to solid waste.

As described above, Public Resources Code §40000 *et seq.* requires that local jurisdictions divert at least 50 percent of all solid waste generated by January 1, 2000. The City consistently diverts 50 percent or more of solid waste and, therefore, is in compliance with this legislation. The City remains committed to

continue its existing waste reduction and minimization efforts with the programs previously discussed in Section 4.14.3 (Existing Conditions). Thus, implementation of the proposed General Plan Update would not conflict with any Federal, State, or local statutes or regulations related to solid waste disposal. Therefore, *no impact* would occur.

Cumulative Impacts

Despite the anticipated sufficient capacity of the Bowerman Landfill discussed above, any existing capacity that currently exists within the landfill's service boundary is finite. Thus, it is considered that, without approved specific plans for substantial expansion of the landfill facilities that serve the County, solid waste generation from approved and foreseeable cumulative projects in the project area vicinity would exacerbate regional landfill capacity issues in the future. That is, any additional solid waste incrementally added to existing facilities will decrease the amount of time until they are completely full. The implementation of source reduction measures would be required on a project-specific basis and plans such as those for recycling would partially address landfill capacity issues by diverting additional solid waste at the source of generation. However, because of the issues discussed above, development associated with cumulative projects within and around the City would be cumulatively considerable. Although the project itself, however, would have a less-than-significant contribution to this effect, impacts associated with cumulative development would be *significant and unavoidable*.

All cumulative development within the project area and Orange County would be required to comply with all applicable Federal, State, and local statutes and regulations related to solid waste. This includes compliance with AB 939, which requires a 50 percent diversion of all solid waste from disposal in local landfills. There is *no cumulative impact* related to compliance with applicable regulations.

Proposed General Plan Update Policies

No policies related to solid waste are contained in the proposed General Plan Update.

Mitigation Measures

Implementation of the General Plan Update would result in *less-than-significant* project impacts associated with solid waste, and no mitigation measures would be necessary. However, cumulative impacts would be *significant and unavoidable*.

Level of Significance After Policies/Mitigation Measures

There are no policies associated with solid waste under the proposed General Plan Update, although existing City ordinances address solid waste collection and source reduction. No mitigation measures would be required. Project impacts associated with solid waste within the Planning Area would be *less than significant*. However, cumulative impacts would be *significant and unavoidable*.

4.14.4 Energy

■ Electricity

Southern California Edison Company (SCE) is the primary distribution provider for electricity in the Planning Area.¹³² SCE is a regulated electrical utility and as such maintains electrical facilities and infrastructure within the City and surrounding areas. Those facilities and infrastructure are expected to be used to provide service to the Planning Area under the applicable rules and tariffs approved by the California Public Utilities Commission (CPUC). Currently, SCE has no immediate plans for expansion within the City of Newport Beach, as most of the City is built out. However, every year SCE expands and improves existing facilities according to demand.¹³³

Standard electricity generation rates used by SCE currently exist under tariff schedules General Service (GS-2) and Time-of-Use (TOU) as filed with the CPUC. The primary distribution voltage levels serving the Newport Beach area are 12,000 volts (kV) for commercial uses and 4,000 kV for residential uses. Currently, the City is placing existing overhead facilities underground. Substations within the City of Newport Beach include McArthur, Newport, Crown, and Lafayette Substations. However, there are a number of other substations in adjacent cities, such as Hamilton substation in the City of Huntington Beach, which feed circuits in Newport Beach in order to provide reliable service within the City.¹³⁴

SCE derives its electricity from a variety of sources, as shown in Table 4.14-15. Nearly half of its electricity comes from natural gas, with renewable resources constituting another nearly 20 percent.

The 2005 Integrated Energy Policy Report prepared by the California Energy Commission (CEC) summarizes the State of California's electrical and natural gas supplies. Despite improvements in power plant licensing, highly successful energy efficiency programs and continued technological advances, development of new energy supplies is not keeping pace with the State's increasing demands. A key constraint in energy is the State's electricity transmission system. Under most circumstances, the State's power grid is able to reliably delivery energy to consumers; for the majority of the days during the year adequate energy supplies are reliably provided to consumers. California's electricity demand is driven by short summer peaks, such that reducing peak demand is the essential factor in adequately planning for the State's electrical needs. These peak demands include a few hours to several days each year, such that managing demand, rather than developing supplies at new power plants for this limited time appears the most efficient method to meet State needs on peak days. The CEC has developed an action plan which includes increasing energy capacity in investor-owned utilities, incentives for combined heat and power projects (cogeneration), energy efficiency programs, expansion of renewable energy programs.

¹³² SCE website 2003, 30 September

¹³³ Leanne Swanson, personal communication, 2003, 30 September

¹³⁴ Ken Eatherton, personal communication, 2003, 30 September

Table 4.14-15 Southern California Edison Power Content

<i>Energy Resources</i>	<i>SCE Power Mix (projected)</i>
Eligible Renewable	19%
Biomass & Waste	2%
Geothermal	11%
Small hydroelectric	1%
Solar	1%
Wind	4%
Coal	11%
Large Hydroelectric	4%
Natural Gas	49%
Nuclear	17%
Other	<1%
Total	100%

SOURCE: Tran 2004

Percentages are estimated annually by the California Energy Commission based on electricity sold to California consumers during the previous year.

■ Natural Gas

This section defines the existing natural gas service provided to the City of Newport Beach. Information was obtained from communication with service providers and online resources.

Southern California Gas Company (SCGC) provides natural gas service for the Planning Area. Natural gas is a “fossil fuel,” indicating that it comes from the ground, similar to other hydrocarbons such as coal or oil. SCGC purchases natural gas from several bordering states.

Most of the major natural gas transmission pipelines within the Planning Area are owned and operated by SCGC. However, if a customer within Newport Beach meets the requirements to purchase gas from a contracted marketer or agent they may do so.¹³⁵ SCGC customers have the option of purchasing their natural gas from a list of natural gas suppliers. The list of approved natural gas suppliers is available on the Southern California Gas web site, which is updated periodically.¹³⁶

The Public Utilities Commission (PUC) regulates SCGC, who is the default provider required by State law, for natural gas delivery to the Planning Area. SCGC has the capacity and resources to deliver gas except in certain situations that are noted in State law. As development occurs, SCGC will continue to extend its service to accommodate development and supply the necessary gas lines. SCGC does not base its service levels on the demands of the Planning Area; rather it makes periodic upgrades to provide service for particular projects and new development. Approximately two months before construction

¹³⁵ Ella Abidere, personal communication, 2003

¹³⁶ SCE website 2003, 3 November

commences on a project, SCGC requests that the developer contact them with detailed information about the project’s natural gas requirements. If necessary, SCGC customizes pipelines and mains to better serve newly constructed facilities. The cost for such service differs from project to project.¹³⁷ SCGC is continuously expanding its network of gas pipelines to meet the needs of new commercial and residential developments in Southern California.

California has not experienced a widespread natural gas shortage in many years. Current supplies are adequate to meet demands, although natural gas storage could be expanded to improve reliability. The State imports 87 percent of its statewide natural gas supply.

■ Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2005 CEQA Guidelines. For purposes of this EIR, implementation of the proposed project may have a significant adverse impact with respect to energy if it would result in the following:

- Require or result in the construction of new energy production and/or transmission facilities or expansion of existing facilities, the construction of which could cause significant environmental effects

■ Project Impacts, Mitigation Measures, and Proposed Policies

Effects Not Found to Be Significant

The IS/NOP prepared for the proposed project did not identify any effects not found to be significant associated with Energy. Therefore, all thresholds are addressed in this section.

Project Impacts

Threshold	Would the project require or result in the construction of new energy production or transmission facilities, the construction of which could cause a significant environmental impact?
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Implementation of the General Plan Update would not require or result in the construction of new energy production or transmission facilities.

The State is currently experiencing constraints related to energy supply and delivery. These constraints are generally limited to peak demand days during the summer months, such that for the majority of the days during the year adequate energy supplies are reliably provided to consumers. Implementation of the proposed General Plan Update would increase use of electricity in the project area, in particular, the demand for electricity to light, heat, and air condition the residential, commercial, and business development.

¹³⁷ Ella Abidere, personal communication, 2003

On peak days, the increase in demand from implementation of future development under the proposed General Plan Update would contribute to electricity supply and delivery constraints. However, all future development would be constructed in compliance with Title 24 energy efficiency standards. Policy 24.1 of the Natural Resource Element requires the City to develop incentives that encourage the use of energy conservation strategies by both private and public development. Compliance with this policy would ensure that no impacts related to electricity supply occur. In addition, the electrical distribution system is continually being upgraded as growth occurs.

By the time future development would be constructed under the proposed General Plan Update, it is expected that some steps outlined in the CEC action plan will have been implemented to alleviate energy constraints. If these constraints do remain, they could be addressed through “rolling blackouts,” which are limited to specific geographic areas for a period of hours. Further, if energy constraints remain, they are a reflection of the broad energy supply issues experienced by California as a whole, and not unique to the demands of the development in the City.

Further, the California Energy Commission licensed two additional power plants in 2001 that were anticipated to provide California with electrical energy supply capacity and the ability to meet peak load demand in excess of forecasts of regional energy supplies. Consequently, although the proposed General Plan Update would result in an increased electricity demand in the City, additional energy demands resulting from the proposed project would be adequately met by current and planned infrastructure during most of the year. Further, development under the proposed General Plan Update would be required to comply with the energy conservation measures contained in Title 24, which would reduce the amount of energy needed for the operation of any buildings constructed as a part of the proposed General Plan Update.

Additionally, the current electrical demand of the Planning Area is within the capacity limitations of the electrical facilities serving the City. Excluding any unforeseen problems, existing distribution resources have the ability to serve all existing customer loads in accordance with its rules and tariffs. The projected electrical demand of the Planning Area and for buildout under the proposed General Plan Update is expected to be within SCE’s current 10-year load forecasts. Though SCE’s total system demand is expected to continue to increase annually, excluding any unforeseen problems, SCE’s plans for new distribution resources would be adequate to serve all existing and new customer loads throughout the next decade. SCE does not expect that utilities deregulation will affect service to the Planning Area. However, to reduce any potential impacts associated with buildout of the proposed General Plan Update, SCE recommends the use of energy efficient and high-performance design for nonresidential and residential building design and construction. Therefore, *no impact* would result.

Threshold	Would the project require or result in the construction of new natural gas production or transmission facilities, the construction of which could cause a significant environmental impact?
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Implementation of the General Plan Update would not require or result in the construction of new natural gas production or transmission facilities.

SCGC declares itself a “reactive” utility and will provide natural gas as customers request its services. SCGC has also indicated that an adequate supply of natural gas is currently available to serve additional development, and that the natural gas level of service provided to the City would not be impaired by buildout under the proposed General Plan Update. Any expansion of service necessitated by implementation of the proposed General Plan Update would be in accordance with SCGC’s policies and extension rules on file with the California Public Utilities Commission at the time contractual agreements are made. Because the natural gas demand projected for the proposed General Plan Update would not exceed available or planned supply, new infrastructure would not be required to serve the proposed project. Therefore, *no impact* would result.

Cumulative Impacts

Development under the proposed General Plan Update, in combination with all other development within the SCE and SCGC service areas, would result in the permanent and continued use of electricity and natural gas resources. However, as both SCE and SCGC are reactive providers, which supply electricity and natural gas services to customers at their request, it is assumed that they would be able to service future developments under the proposed General Plan Update buildout in combination with all projected future developments within their service boundaries. Therefore, the project’s contribution to these impacts would not be cumulatively considerable and cumulative impacts to energy demand within SCE and SCGC service boundaries would be *less than significant*.

Proposed General Plan Update Policies

The proposed General Plan Update contains policies within its Natural Resources Element to reduce or minimize the effects of the additional demand and consumption of energy resources (electricity and natural gas) associated with the prospective growth within the project area. The following proposed General Plan Update policies will directly or indirectly address energy resources. Implementation of the following policies would help reduce the effects of the additional demand and consumption of natural gas and electricity.

Natural Resources Element

Goal NR 24 Increased energy efficiency in City facilities and operations and in private developments.

Policy NR 24.1 Incentives for Energy Conservation

Develop incentives that encourage the use of energy conservation strategies by private and public developments.

Policy NR 24.2 Energy-Efficient Design Features

Promote energy-efficient design features.

Policy NR 24.3 Incentives for Green Building Program Implementation

Promote or provide incentives for “Green Building” programs that go beyond the requirements of Title 24 of the California Administrative Code and encourage energy efficient design elements as appropriate to achieve “green building” status.

Policy NR 24.4 Incentives for Provision of LEED Certified Buildings

Provide incentives for implementing Leadership in Environmental and Energy Design (LEED) certified building such as fee waivers, bonus densities, and/or awards recognition programs.

Policy NR 24.5 New Methane Extraction Activities

Allow new methane extraction activities to reduce reliance on fossil fuels.

■ Impacts and Mitigation Measures

Implementation of the General Plan Update not result in any impacts associated with electricity or natural gas resources and no mitigation would be required.

Level of Significance After Policies/Mitigation Measures

Existing regulations and policies outlined in the proposed General Plan Update would ensure that no impact associated with energy resources would occur.

4.14.5 References

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