

4.13 UTILITIES/SERVICE SYSTEMS

This section evaluates the effects of the proposed project on utilities and service systems by identifying the anticipated demand for utilities, as well as existing and planned utility availability. For purposes of this EIR, utilities include domestic water supply, wastewater conveyance and treatment, and solid waste collection and disposal. In addition, although not identified in the Initial Study/Notice of Preparation (IS/NOP) prepared for the project, this section also analyzes electricity and natural gas utilities. Stormwater drainage facilities are discussed in Section 4.7 (Hydrology/Water Quality) of this report.

Data used to prepare this section were taken from contacts with utility providers and City staff (Appendix 11). Full bibliographic entries for all reference materials are provided in Section 4.13.14 (References) at the end of this section.

All comments received in response to the IS/NOP circulated for the proposed project were taken into consideration during preparation of this EIR, and, if relevant, have been addressed in this section or others within this document.

Water Supply

This section describes the current status of water supply services in the City of Huntington Beach, and the ability of the City's water supply services to meet the current needs of the City. The City of Huntington Beach adopted the 2010 Urban Water Management Plan (UWMP) on June 20, 2011. Data for this section were taken from 2010 Urban Water Management Plan, and the Water Supply Assessment for the Beach-Edinger Corridors Specific Plan (WSA), as well as contacts with utility providers and City staff. A water supply assessment (WSA) was prepared for the Beach and Edinger Corridor Specific Plan (BECSP) pursuant to Water Code Sections 10910 et seq. that identifies methodologies to calculate the water demand for net increases in land uses throughout the City of Huntington Beach. Full reference-list entries for all cited materials are provided in Section 4.13.5 (References).

4.13.1 Environmental Setting

The City of Huntington Beach Public Works Department (Public Works) is the principal water retailer within the City boundaries and the Sunset Beach area of unincorporated Orange County including the project site. Public Works is responsible for operating and maintaining wells, reservoirs, imported water connections, distribution pipelines, fire hydrants, water meters, and related infrastructure. Public Works conducts comprehensive water quality testing and monitoring programs and develops long-range operational and engineering plans designed to prepare for future needs and contingencies.

■ Water Sources and Supplies

The City's drinking water is a blend of surface water imported by the Metropolitan Water District of Southern California (Metropolitan) and delivered to its member agencies throughout southern California.

Municipal Water District of Orange County¹¹⁰ (MWDOC) is a Metropolitan member agency and the City of Huntington Beach is one of twenty-eight MWDOC retailers. The City pumps groundwater from the Santa Ana River basin, locally known as the Orange County Basin. Approximately one-third of the water used in the City is imported water and groundwater makes up the balance, roughly two-thirds of the City water.

Metropolitan's imported water sources are delivered from the Colorado River Aqueduct (CRA) and the State Water Project (SWP), which draws water from the Sacramento-San Joaquin Bay Delta (Delta) via pumps in the southern Delta and conveys it through the California Aqueduct to southern California. The City maintains three imported water connections with Metropolitan: two connections are operated under the West Orange County Water Board¹¹¹ (WOCWB) joint powers agreement and the third is controlled solely by the City of Huntington Beach. One connection (OC 9) is located in the Northeast corner of the City and has the capacity to deliver 6,750 gpm into the water system. A second connection (OC 35) is located in the Northwest corner of the City and has a capacity to delivery of 11,250 gpm. OC 44, the City's controlled connection, enters the southeast portion of the City and has a capacity to deliver 7,000 gpm.¹¹²

Groundwater comes from a natural underground reservoir managed by the Orange County Water District (OCWD) that stretches from the Prado Dam and fans across the northwestern portion of Orange County, excluding the communities of Brea and La Habra, and as far south as the El Toro "Y". The City's Service Area and Water Supply Facilities are shown in Figure 4.13-1 (Water Service Area and Supply Facilities).

■ Metropolitan Water District of Southern California (Metropolitan)

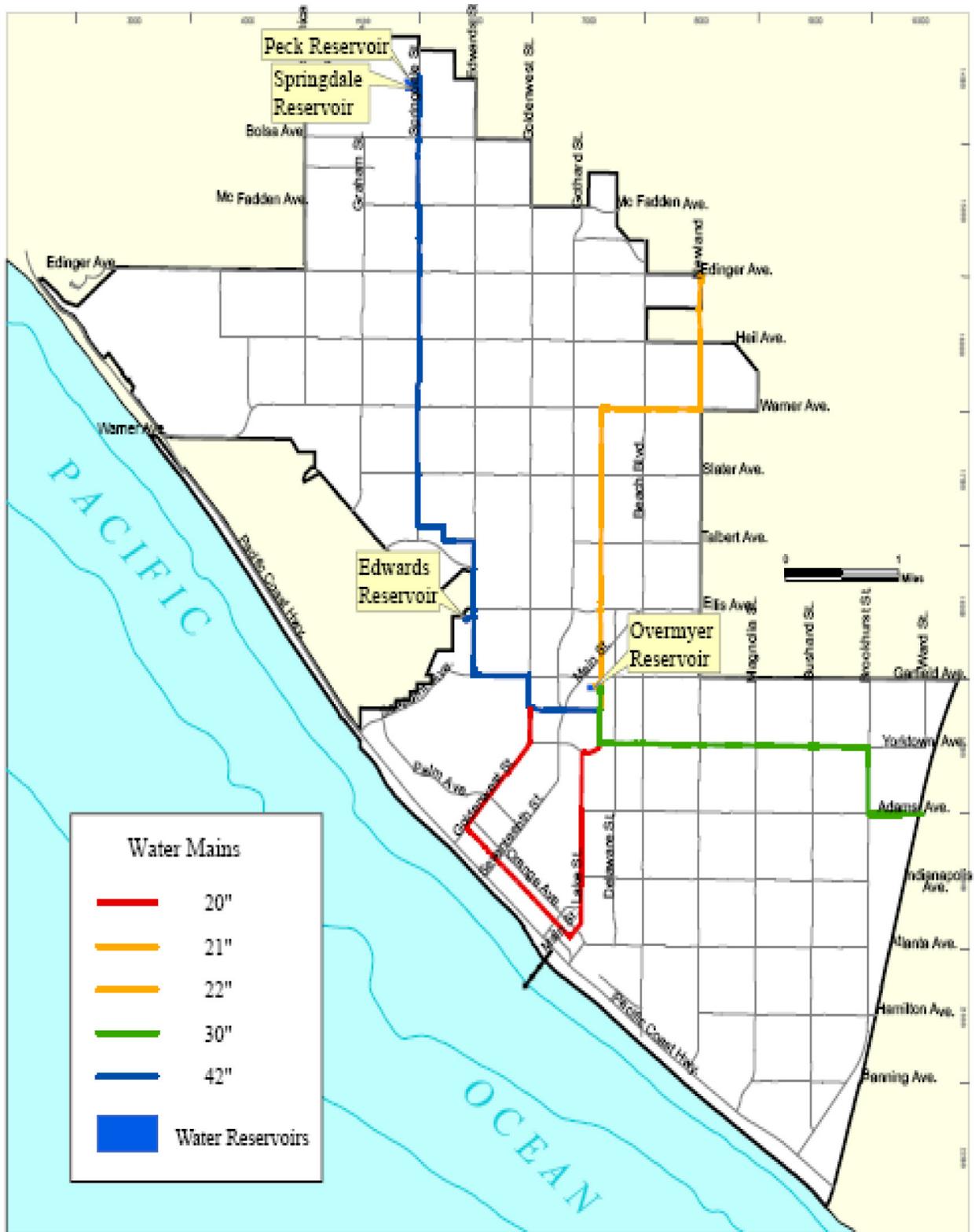
Metropolitan was formed in the late 1920s. At that time, Orange County was mostly an agriculturally based economy with the cities of Santa Ana, Anaheim, and Fullerton as the primary centers of urban development. Although other cities and residential communities existed at that time, it was these three cities that joined ten others located in Southern California, to form Metropolitan in 1928. Collectively, these charter members recognized the limited water supplies available within the region, and realized that continued prosperity and economic development of Southern California depended upon the acquisition and careful management of an adequate supplemental water supply. This foresight made the continued development of Southern California and Orange County possible.

Metropolitan imports water from northern California via the SWP and from the CRA to supply water to most of southern California. As a wholesaler, Metropolitan has no retail customers, and distributes treated and untreated water directly to its twenty-six member agencies. One such member agency is MWDOC.

¹¹⁰ MWDOC is a wholesale water supplier and resource planning agency that serves all of Orange County (except Anaheim, Fullerton, and Santa Ana) through twenty-eight retail water agencies. MWDOC purchases imported water from the Metropolitan and distributes it to our client agencies, which provide retail water services to the public.

¹¹¹ The WOCWB is a joint powers agreement between the cities of Huntington Beach, Garden Grove, Westminster, and Seal Beach for the ownership and operation of two large connections (OC-9 and OC-35) to the imported water system.

¹¹² City of Huntington Beach, Water Source, http://www.huntingtonbeachca.gov/Government/Departments/Public_Works/utilities/supply/ (accessed August 23, 2010).



Source: City of Huntington Beach, 2005 Urban Water Management Plan.



Figure 4.13-1
Water Service Area and Supply Facilities

■ MWDOC Background

MWDOC was formed for the purpose of contracting with Metropolitan to acquire supplemental imported water supplies from northern California and the Colorado River for use within Orange County. MWDOC is a regional water wholesaler and resource planning agency, managing all of Orange County's imported water supply with the exception of water imported to the cities of Anaheim, Fullerton, and Santa Ana. MWDOC serves more than 2.3 million residents in a 600-square-mile service area and is Metropolitan's third largest member agency.

Local supplies developed by individual member agencies, primarily groundwater, currently account for about 55 percent of MWDOC's direct water use by its members. The remaining 45 percent of direct water use demand is met by imported water from Metropolitan.¹¹³

■ OCWD Water Supply Planning

OCWD was formed in 1933 by a special act of the California Legislature to protect the groundwater basin. The OCWD is neither a wholesale nor a retail water provider; rather, the OCWD manages the groundwater basin through regional recharge programs. Recharge is accomplished with local and imported water supplies to offset pumping from the Basin. Because OCWD is the manager of the Basin and not an urban water supplier, it is not required to develop an UWMP; however, in 2004, OCWD adopted a Groundwater Management Plan (GMP) in its capacity to ensure sufficient water supplies for present and future beneficial uses within Orange County. An update to the OCWD GMP was released in May 2009. The GMP has objectives to help secure a long-term viable supply of groundwater; this management strategy, described in more detail below, is effectively based upon groundwater recharge programs including the forebay recharge facilities, seawater intrusions barriers, and in-lieu programs and water storage agreements with Metropolitan.

There are twenty-three major producers extracting water from the Orange County groundwater basin, which is managed by OCWD, in collaboration with other water and wastewater agencies.

OCWD's allowable Basin Pumping Percentage (BPP) establishes the annual pumping percentage per OCWD member and may vary annually. Since the BPP was originally established in 1962, the BPP has varied from 62 to 89 percent. The average BPP over its 42-year history is 71.1 percent.¹¹⁴ The BPP is set uniformly and is a portion of each member's water supply that comes from groundwater pumped from the basin. OCWD members pay a Replenishment Assessment (RA) fee for water pumped from the basin. Groundwater production at or below the BPP is assessed the RA. Any production above the BPP is charged the RA plus the Basin Equity Assessment (BEA). The BEA is calculated so that the cost of groundwater production above the BPP is typically higher than purchasing imported potable supplies. This approach serves to discourage, but not eliminate, production above the BPP. The BEA can be increased as needed to discourage production above the BPP. Long-term projections of the BPP range from 62 to 65 percent plus or minus 5 percent based on a myriad of factors.¹¹⁵ Currently, the BPP is set

¹¹³ Municipal Water District of Orange County, *Final 2010 Regional Urban Water Management Plan* (June 2010), page 3-1, http://www.mwdoc.com/files/gallery/MWDOC_Final_2010_RUWMP.pdf.

¹¹⁴ City of Huntington Beach, *2010 Urban Water Management Plan* (June 20, 2011), page 2-12.

¹¹⁵ City of Huntington Beach, *2010 Urban Water Management Plan* (June 20, 2011), page 2-12.

at 62 percent, and groundwater pumped between 62 percent to a maximum restriction of 64 percent will be charged the sum of the RA and BEA, which is essentially the same rate as the import water rate purchased through MWDOC.

Within the City, groundwater for potable use is produced from ten operating wells that vary in depth from 250 feet to 1020 feet, with production ranging from 450 gallons per minute (gpm) to 4,000 gpm. Total capacity of the ten wells is 30,000 gpm.¹¹⁶

■ West Orange County Water Board (WOCWB)

The WOCWB is a Joint Powers Agency between four participating agencies. The members include the City of Huntington Beach, the City of Garden Grove, the City of Westminster, and the City of Seal Beach. The board consists of five members, with the City of Huntington Beach having two seats. The board meets quarterly and manages surface water deliveries from Metropolitan (through MWDOC) to the agencies. The board oversees the maintenance of two feeder pipelines that connect to the treated surface water supply. The pipelines have a capacity of 21 cubic feet per second (cfs) and 45 cfs. Each of the member agencies has paid for the capacity of the feeder pipelines and directly pays MWDOC for the use of water.

■ Supplies within the City of Huntington Beach

Total potable supplies within the City are composed of local groundwater and imported water. In the 2010 water year, the City pumped approximately 62 percent of its water supply from groundwater wells accessing the Santa Ana River groundwater basin and purchased 38 percent from Metropolitan through MWDOC. These percentages are established through OCWD’s allowable BPP. The BPP is typically set by OCWD on an annual basis. However, OCWD does have the option of revising the BPP as needed. Actual percentages vary annually depending on the extent to which in-lieu delivery programs are implemented as well as groundwater levels. Current and projected water supplies in Normal Years from imported water and groundwater are shown in Table 4.13-1 (Current and Planned Water Supplies in AFY [Normal Water Year]).

Table 4.13-1 Current and Planned Water Supplies in AFY (Normal Water Year)							
Water Supply Sources	2010^a	2010^b	2015	2020	2025	2030	2035
MWDOC—Import	11,197	21,370	25,180	29,230	33,270	31,810	30,420
Groundwater Production	18,271	20,070	20,220	20,480	20,970	21,280	21,490
Total Water Supply	29,468	41,440	45,400	49,710	54,240	53,090	51,910

a. Actual 2010 supply used, refer to Appendix E of the City’s 2010 UWMP.
 b. 2010 estimated available supply, under Normal Water Year, including surplus, see Table 5.2-1 of the City’s 2010 UWMP. Because 2010 was a Metropolitan Water Supply Allocation Year and not a Normal Water Year, there was no surplus.

In years of low precipitation MWDOC’s Water Supply Allocation Plan formula is used to determine water supplies to the City under the current hydrologic conditions. Base Period supplies were formulated

¹¹⁶ City of Huntington Beach, Water Source. http://www.huntingtonbeachca.gov/Government/Departments/Public_Works/utilities/supply/ (accessed August 23 2010).

by calculating supply deliveries for 3 previous years and then factoring in conservation credits and other specific adjustments.

Table 4.13-2 (MWDOC's WSAP Base Year Supplies [afy]) shows the supplies available to the City under MWDOC's WSAP Base Period model (no reductions), hereinafter referred to as "Base Year." Under this supply scenario commencing in July 2009 through 2010, the City would expect to receive 33,323 afy.

Table 4.13-2 MWDOC's WSAP Base Year Supplies (afy)						
Years	2009	2010	2015	2020	2025	2030
Imported Water	12,663	12,663	12,663	12,663	12,663	12,663
Groundwater	20,660	20,660	20,660	20,660	20,660	20,660
Total^a	33,323	33,323	33,323	33,323	33,323	33,323

SOURCE: City of Huntington Beach, *Water Supply Assessment for Beach-Edinger Corridor Specific Plan* (August 2009).

a. MWDOC's WSAP Base Year Water Supply Allocation. Assumes 38% Imported Water from MWDOC and 62% BPP of Groundwater from OCWD.

However, if statewide water supplies are reduced, then both Metropolitan and MWDOC would respond as they did in 2008, 2009 and 2010 to initiate their WSAP. Under WSAP Stage 2 as observed in 2009, supply allocation, the City expected to receive less than the Base Year water supply allocation, which is estimated to be 31,963 afy. One short-term solution to compensate for reduction in import supply can be achieved by pumping within the BEA restriction, currently set at 2 percent above BPP, at a rate essentially the same as the purchasing rate through MWDOC. As shown in Table 4.13-3 (MWDOC's WSAP Stage 2 Supplies with 2009 BEA of 2% or 64% Groundwater [afy]), under MWDOC's WSAP Stage 2, additional groundwater pumping within BEA restriction could increase annual supplies by 1,776 acre-feet.¹¹⁷ Under MWDOC's WSAP Stage 3, that could increase by 1,688 acre-feet.

Table 4.13-3 MWDOC's WSAP Stage 2 Supplies with 2009 BEA of 2% or 64% Groundwater (afy)						
Years	2009	2010	2015	2020	2025	2030
Imported Water	12,146	12,146	12,146	12,146	12,146	12,146
Groundwater	21,593	21,593	21,593	21,593	21,593	21,593
Total^a	33,739	33,739	33,739	33,739	33,739	33,739

SOURCE: City of Huntington Beach, *Water Supply Assessment for Beach-Edinger Corridor Specific Plan* (August 2009).

a. MWDOC's WSAP Base Year Water Supply Allocation. Assumes 38% Imported Water from MWDOC and 62% BPP of Groundwater from OCWD.

Projected supplies are shown in Table 4.13-4 (City of Huntington Beach Supply Allocations with WSAP Stage 2 and Stage 3 Allocations—Normal, Single-Dry, and Multiple-Dry Years [2010–2030]). If, for example, next year is a dry year, MWDOC could initiate Stage 2 of the MWDOC WSAP and reduce deliveries accordingly.

¹¹⁷ Total supplies would increase from 31,963 afy (WSAP Stage 2) to 33,739 afy (Table 4.7-4), which is an increase of 1,776 afy.

Table 4.13-4 City of Huntington Beach Supply Allocations with WSAP Stage 2 and Stage 3 Allocations—Normal, Single-Dry, and Multiple-Dry Years (2010–2030)

Supply Allocation	Base Year Water Supply Allocation ^a		WSAP Stage 2 Allocation Single Dry Year ^b		Multiple Dry Year Event ²					
					WSAP Stage 2 Allocation Dry Year 1 ^c		WSAP Stage 3 Allocation Dry Year 2 ^d		WSAP Stage 3 Allocation Dry Year 3	
	afy	%	afy	%	afy	%	afy	%	afy	%
Huntington Beach Allocation	33,323	100	31,963	90	31,963	90	30,376	85	30,376	85

SOURCE: Developed by Atkins for Water Supply and Demand Planning Purposes; City of Huntington Beach, *Water Supply Assessment for Beach-Edinger Corridor Specific Plan* (August 2009).

- a. MWDOC Draft WSAP 2009 from City of Huntington Beach staff August 5, 2009. Assumes 38% imported water from MWDOC and 62% BPP of groundwater from OCWD.
- b. Atkins developed additional dry year planning projections based on Stage 2 and Stage 3 Allocations.
- c. Stage 2 Allocation in effect beginning in Dry Year 1—Same as Single Dry Year.
- d. Stage 3 Allocation in effect after Dry Year 1 and due to the WSAP model WSAP Stage remains in effect over the next year as well.

■ Water Demand

Regional Demand

Wholesale and retail agencies, special districts, municipalities, and consumers within their respective service areas generate water demand in southern California. In this context, Metropolitan analyzes wholesale demand at a regional level, MWDOC assesses demand within its twenty-eight member agencies within Orange County including the City. The City evaluates demand within its service area boundaries. For a complete description of water demand throughout Metropolitan’s service areas and the demand within MWDOC’s service area.¹¹⁸

City of Huntington Beach Demand

The City estimates a range of different future water demands, such as average-day demands and other adjusted demands, in order to adequately plan for anticipated growth for water supply and sizing of pipes, respectively. In the City of Huntington Beach, water demand is not dissimilar from other municipal water providers, insofar as demand occurs as a result of consumptive uses by consumers.

As shown in Table 4.13-5 (Historical Demands [2001–2010]) annual City demand over the last decade has decreased. Demand in 2008 was 31,662 acre-feet as compared to 34,790 acre-feet in 2001 and then in 2010 demand fell to 28,438 acre-feet. Demand decreases could be contributed to significant conservation efforts, loss of tourism, continuing decline of economic conditions, and annual population decreases. As demand decreases the City’s overall supply and demand situation is expected to improve; however, at some point, water demand will hit a point at which water conservation savings will harden and further savings will not be observed.

¹¹⁸ Municipal Water District of Orange County, *Final 2010 Regional Urban Water Management Plan* (June 2010), http://www.mwdoc.com/filesgallery/MWDOC_Final_2010_RUWMP.pdf.
 Metropolitan Water District of Southern California. *The Regional Urban Water Management Plan*, November 2010. http://www.mwdh2o.com/mwdh2o/pages/yourwater/RUWMP/RUWMP_2010.pdf.

Year	Water Demand (afy)
2001	34,790
2002	34,736
2003	33,333
2004	34,088
2005	32,619
2006	31,634
2007	33,067
2008	31,662
2009	31,252
2010	28,438

Gross Water Use = Water from own sources + Imported – Recycled – Agricultural

Since 1990, new connections have been added at a rate of approximately 1 percent per year, but that rate declined in recent years due to economic conditions. Due to new plumbing efficiency standards, landscape guidelines, and other water use efficiency programs, water demand is projected to increase at a declining rate of less than 1 percent per year in future years. Table 4.13-6 (Current (2010) and Projected Water Use by Billing Classification [AFY]) presents current as of 2010 and projected water use between 2010 and 2035 by billing classifications. As shown the City uses Single Family Residential, Multi-Family Residential, Commercial, Industrial, Institutional/Governmental, and Landscape Irrigation.¹¹⁹

City Billing Class	2010	2015	2020	2025	2030	2035
Single Family Residential	13,754	15,526	15,708	16,029	16,252	16,384
Multi-Family Residential	6,149	7,035	7,119	7,346	7,420	7,525
Commercial	3,582	4,073	4,202	4,396	4,572	4,648
Industrial	511	574	574	574	574	574
Institutional/Governmental	155	175	176	177	178	179
Landscape Irrigation	2,651	2,981	2,982	2,983	2,984	2,985
Other—Outside of Billing System (AES Power Plant, Central Park, Meadowlark Park)	466	524	524	524	524	524
<i>Subtotal</i>	<i>27,268</i>	<i>30,888</i>	<i>31,285</i>	<i>32,031</i>	<i>32,505</i>	<i>32,820</i>
Unaccounted for System Losses ^a	1,611	1,729	1,751	1,793	1,819	1,837
Total Water Use	28,879	32,616	33,036	33,823	34,324	34,657

SOURCE: Year 2010 data from City of Huntington Beach for City Fiscal Year (i.e., 2010 data is for October 1, 2009, through September 30, 2010); all future water use by billing class from Table 5.2-3

a. 2005 and 2010 unaccounted for losses are based on actual data; all other years based on an estimated average loss of 5.3% (i.e., the average percentage loss over the past 5 years)

¹¹⁹ City of Huntington Beach, *2010 Urban Water Management Plan* (June 20, 2011), page 6-1

Supply and Demand Comparisons

Table 4.13-7 (Projected Supply and Demand Comparison in Normal Years [afy]) shows the comparison of anticipated supply and calculated demand over the next 20 years based on currently available information from OCWD, MWDOC, and Metropolitan. Within the City, an increase in demand of 2,040 afy is anticipated between 2015 and 2035, which also includes the proposed project's contribution within the City's commercial, industrial, and institutional sector. In that same time period, supplies are anticipated to grow with population increases. The City can expect demand to increase each year between 2015 and 2035. As shown in Table 4.13-7, supplies exceed demand because the City only delivers what is necessary to meet daily demands. Although a surplus supply is presented in Table 4.13-7, the City only has the storage capacity in its local reservoirs for up to 55 million gallons.

Water Supply Sources	Years				
	2015	2020	2025	2030	2035
Imported	25,180	29,230	33,270	31,810	30,420
Local (Groundwater) ^a	20,220	20,480	20,970	21,280	21,490
Total Supply	45,400	49,710	54,240	53,090	51,910
Total Demand^b	32,620	33,040	33,820	34,320	34,660
Supply/Demand Difference (Surplus)	12,780	16,670	20,420	18,770	17,250

SOURCE: City of Huntington Beach, 2010 Urban Water Management Plan (June 20, 2011), Table 5.2-1.

- Groundwater demand is estimated to comprise 62% of the total demand based on a BPP of 62%. Groundwater supply is estimated to equal Groundwater demand.
- Total Water Demand figures are based on the Agency's projections including unaccounted for water (Table 2.2-1); refer to Appendix E, Table titled "City of Huntington Beach Demand Projections" to view breakdown of projections of water demand from new development above OCP.

Water Infrastructure, Treatment and Distribution

The City of Huntington Beach has four reservoirs with a total combined capacity of 55 million gallons. Various booster pumps draw water from the reservoirs and pressurize it into the water system during high demand periods. Overmyer Reservoir has a capacity of 20 million gallons. Peck Reservoir has a capacity of 17 million gallons. Edwards Hill Reservoir is the newest facility and has a capacity of 9 million gallons. Springdale Reservoir has a capacity of approximately 9 million gallons.¹²⁰

The City of Huntington Beach also has ten wells, three imported water connections, and a variety of transmission and conveyance facilities. Wells vary in depth from 250 to 1,020 feet and range in production from 450 to 4,000 gpm. The total system capacity of the City's groundwater wells is 30,000 gpm. The booster pumps have a total capacity of 44,365 gpm, which is adequate to keep the system pressurized under peak flow conditions.¹²¹

¹²⁰ City of Huntington Beach, 2010 Urban Water Management Plan (June 20, 2011), page 2-7.

¹²¹ City of Huntington Beach, Water Source. http://www.huntingtonbeachca.gov/Government/Departments/Public_Works/utilities/supply/ (accessed August 23 2010).

4.13.2 Regulatory Framework

■ Federal

Federal Safe Drinking Water Act

Enacted in 1974 and implemented by the EPA, the federal Safe Drinking Water Act imposes water quality and infrastructure standards for potable water delivery systems nation-wide. The primary standards are health-based thresholds established for numerous toxic substances. Secondary standards are recommended thresholds for taste and mineral content.

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (USEPA) established primary drinking water standards in the Clean Water Act Section 304. States are required to ensure that potable water retailed to the public meets these standards. Standards for a total of eighty-one individual constituents have been established under the Safe Drinking Water Act as amended in 1986. The USEPA may add additional constituents in the future. State primary and secondary drinking water standards are promulgated in CCR Title 22 Sections 64431–64501. Secondary drinking water standards incorporate non-health risk factors including taste, odor, and appearance.

■ State

Urban Water Management Planning Act (California Water Code, Division 6, Part 2.6, Sections 10610 et seq.)

The Urban Water Management Planning Act (Act) was developed due to concerns over potential water supply shortages throughout California. It requires information on water supply reliability and water use efficiency measures. Urban water suppliers are required, as part of the Act, to develop and implement Urban Water Management Plans (UWMP) to describe their efforts to promote efficient use and management of water resources. The City's 2010 UWMP is intended to serve as a general, flexible, and open-ended document that periodically can be updated to reflect changes in the Orange County water supply trends, and conservation and water use efficiency policies. The UWMP, along with the City's Water Master Plan and other City planning documents, is used by City staff to guide the City's water use and management efforts through the years 2011 to 2035.

Title 22

The California Water Code requires the California Department of Public Health (CDPH) to establish water reclamation criteria. In 1975, the CDPH prepared Title 22 regulations to satisfy this requirement. Title 22 regulates production and use of reclaimed water in California by establishing three categories of reclaimed water: primary effluent, secondary effluent and tertiary effluent. Primary effluent typically includes grit removal and initial sedimentation or settling tanks. Secondary effluent is adequately disinfected, oxidized effluent which typically involves aeration and additional settling basins. Tertiary effluent is adequately disinfected, oxidized, coagulated, clarified, filtered effluent that typically involves filtration and chlorination. In addition to defining reclaimed water uses, Title 22 also defines

requirements for sampling and analysis of effluent and specifies design requirements for treatment facilities.

Water Conservation Projects Act

California's requirements for water conservation are codified in the Water Conservation Projects Act of 1985 (Water Code Sections 11950–11954), as reflected below:

11952 (a). It is the intent of the Legislature in enacting this chapter to encourage local agencies and private enterprise to implement potential water conservation and reclamation projects....

California Water Code Sections 10910 et seq. [SB 221 (Kuehl) and SB 610 (Costa)]

Signed into law on October 2001 and effective beginning in January 2002, SB 221 and SB 610 serve to ensure that certain land developments in California must be accompanied by an available and adequate supply of water to serve those developments. Serving as companion measures, SB 610 and SB 221 seek to promote more collaborative planning between local water suppliers and cities and counties.

SB 221 requires the legislative body of a city, county, or local agency to include, as a condition in any tentative map that includes a subdivision, a requirement that a sufficient water supply shall be available to serve the subdivision. A “subdivision” is defined as a proposed residential development of more than 500 dwelling units or one that would increase, by at least 10 percent, the number of service connections of a public water system having less than 5,000 connections. “Sufficient water supply” is defined as the total water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection that will meet the projected demand of a proposed subdivision. SB 221 ensures that collaboration on finding the needed water supplies to serve a new large subdivision occurs before construction begins.

SB 610 requires additional factors to be considered in the preparation of urban water management plans and water supply assessments. SB 610 requires all urban water suppliers to prepare, adopt, and update an urban water management plan that, essentially, forecasts water demands and supplies within a certain service territory. In addition, water assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code 10912(a)) subject to CEQA.

Senate Bill SBx7-7 2009 (Water Conservation Act of 2009)

In summary, Senate Bill SBx7-7 2009 requires the state to achieve 20 percent reduction in urban per capita water use by December 31, 2020, requires agricultural water management plans and efficient water management practices for agricultural water suppliers, and promotes expanded development of sustainable water supplies at the regional level. Specifically, this part of SBx7-1:

- 1) Establishes statewide urban water conservation target of 10 percent by 2015, and 20 percent by 2020.
- 2) Establishes processes for urban water suppliers to meet the conservation targets:
 - a) Requires urban retail water suppliers, individually or on a regional basis, to develop an urban water use target by July 1, 2011;
 - b) Provides four (4) methods for urban water suppliers to choose from to set and achieve their water use target:

1. 20% reduction in baseline daily per capita use, or
 2. Combination of efficiency standards for residential indoor use [55 gallons per capita daily (gpcd)]; residential outdoor use (Model Water Efficient Landscape Ordinance); and commercial, industrial, and institutional (CII) use (10% reduction); or,
 3. 5% reduction in the Department of Water Resources (DWR) regional targets; or
 4. A method to be developed by DWR: Provisional method four (4) developed by DWR February 2011.
- c) Requires minimum 5% reduction in base water use by 2020 for all urban water suppliers.
 - d) Allows recycled water to count toward meeting urban supplier's water use target if recycled water offsets potable water demands.
 - e) Allows urban suppliers to consider certain differences in their local conditions when determining compliance.
 - f) Requires urban water suppliers to hold public hearings to allow for community input on the supplier's implementation plan for meeting their water use target, and requires the implementation to avoid placing a disproportionate burden on any customer sector.
 - g) Conditions eligibility for water management grants and loans on an urban water supplier's compliance with meeting the requirements established by the bill.
- 3) Prohibits urban suppliers from requiring changes that reduce process water—defined in the bill as water used in production of a product—and allows urban water supplier to exclude process water from the development of the urban water target if substantial amount of its water deliveries are for industrial use.
 - 4) Requires DWR review and reporting on urban water management plans and report to the Legislature by 2016 on progress in meeting the 20 percent statewide target, including recommendations on changes to the standards or targets in order to achieve the 20 percent target.
 - 5) Creates a CII Task Force to develop best management practices (BMPs), assess the potential for statewide water savings if the BMPs are implemented, and report to the Legislature.
 - 6) Re-establishes agricultural water management planning program.
 - 7) Requires DWR to promote implementation of regional water resource management practices through increased incentives/removal of barriers and specifies potential changes.
 - 8) Requires DWR, in consultation with SWRCB, to develop or update statewide targets as to recycled water, brackish groundwater desalination, and urban stormwater runoff.

■ Local

General Plan Utilities Element

The City's General Plan Utilities Element focuses on the City's water supply, sanitation treatment, storm drainage, solid waste disposal, natural gas, electricity, and telecommunications systems. Applicable goals and policies of this element related to water supply and treatment systems and facilities include the following:

- Goal U1** Provide a water supply system that is able to meet the projected water demands; upgrade deficient systems and expand water treatment, supply, and distribution

facilities; and pursue funding sources to reduce the cost of water provision in the City.

Objective U.1.1 Maintain a system of water supply distribution facilities capable of meeting existing and future daily and peak demands, including fire flow requirements, in a timely and cost-efficient manner.

Policy U.1.1.1 Monitor the demands on the water system, manage the development to mitigate impacts and/or facilitate improvements to the water supply and distribution system, and maintain and expand water supply and distribution facilities.

Objective U.1.2 Ensure that existing and new development does not degrade the City's surface waters and groundwater basins.

Policy U.1.2.1 Require that existing and new development contain safeguards and mitigation measures preventing degradation.

Policy U.1.2.2 Require new developments to connect to the sewer system.

Objective U.1.3 Minimize water consumption rates through site design, use of efficient systems, and other techniques.

Policy U.1.3.2 Continue to require the incorporation of water conservation features in the design of all new construction and site development.

Objective U.1.4 Ensure the costs of improvements to the water supply, transmission, distribution, storage and treatment systems are borne by those who benefit.

Policy U.1.4.1 Require the cost of improvements to the existing water supply and distribution facilities necessitated by new development be borne by the new development benefiting from the improvements, either through the payment of fees, or the actual construction of the improvements in accordance with State Nexus Legislation.

■ Consistency Analysis

Implementation of the proposed project could include the construction of necessary water conveyance pipeline upgrades, both on- and off-site, to serve future development. The water lines associated with future development permitted under the proposed project are required to be sized to meet the average day demand with necessary peaking factors. It is anticipated that the increase in water demand would not

result in necessary upgrades to the water treatment plants. As such, the project would be consistent with the goals, objectives, and policies contained in the City's General Plan.

4.13.3 Project Impacts and Mitigation

■ Analytic Method

The analysis in this section focuses on whether the projected increase in water use at the project site falls within the City's projected water demands. It also includes an analysis of whether any infrastructure improvements would be necessary and whether there will be an adequate and reliable source of water for the proposed project. The primary resources used for this analysis include the following technical documents: City of Huntington Beach 2010 Urban Water Management Plan (Huntington Beach, June 2011) and demand information from the Water Supply Assessment for the Beach and Edinger Specific Plan Project (PBS&J 2009); and other supporting documents.

Water use rates, which are used to determine water demands, vary depending on the type of development. The amount of proposed development and its associated water demand is used to develop average-day water use rates, as illustrated by Table 4.13-8 (Proposed Project Land Use and Water Demand). As shown in Table 4.13-8, the proposed project is expected to contribute approximately 17.6 afy (0.0157 mgd) of new water demand. The proposed project's demand was accounted for within the commercial, industrial, and institutional (CII) demand as described in the City's 2010 UWMP.

Table 4.13-8 Proposed Project Land Use and Water Demand	
<i>Proposed Development Intensity (45,000 square feet)</i>	
Multi-use rooms	Multi-use classrooms
Community Hall	Kitchen
Group exercise room	Dance room
Fitness room	Lobby
Arts/crafts room	Administrative area (offices, resource center, transportation area)
Water Demand Factor	0.35 gsf/day ^a
Total Projected Demand	17.6 afy (15,750 gpd) (0.0157 mgd)

a. Mazzetti & Associates, 0.35 gsf/day Multipurpose Uses at Hospital and Hospitality Uses.

■ Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2011 CEQA Guidelines. For purposes of this EIR, implementation of the proposed project may have a significant adverse impact on utilities/service systems if it would do any of the following:

- Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements

■ Effects Found Not to Be Significant

No Effects Not Found to Be Significant have been identified with respect to water supply.

■ Impacts and Mitigation Measures

Threshold	Would the proposed project require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
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Impact 4.13-1 **Implementation of the proposed project could require new water connections or expanded water conveyance systems. However, the project would not require or result in the construction of new or expanded water treatment facilities, the construction of which could cause significant environmental effects. This impact is considered *less than significant*.**

Implementation of the proposed project would include a GPA to re-designate the use of the project site from low intensity to high intensity, to accommodate the development of the proposed senior center on the project site. Implementation of the proposed GPA would result in a departure from the anticipated low-intensity, passive recreational uses and instead would result in a high-intensity use on the site. Under both designations, the existing undeveloped conditions of the project site would not remain. While the GPA itself would not result in direct physical environmental impacts to water systems, development of the senior center would result in physical changes to the project site, the effects of which are analyzed in this section.

As discussed above, the GPA itself would not result in water demands; however, the proposed project also includes a multi-purpose senior center which would require water services. The water demand for the proposed project determined to be 17.6 afy (0.0157 mgd) was considered as a part of the City's projected water demand within the CII sector of its 2010 UWMP.

As previously discussed, the City receives approximately two-thirds of its water supply from groundwater wells and approximately one-third from imported water. For water supply planning purposes, this analysis assumed that demands from the proposed project would be met either from the groundwater system and/or with imported water. A discussion of the conveyance and treatment facilities necessary to serve the proposed project are discussed below.

Water Conveyance Infrastructure

The City operates a water supply system currently consisting of ten wells, three imported water connections, four storage and distribution reservoirs, and a variety of transmission and conveyance facilities. Wells vary in depth from 250 feet to 1,020 feet and range in production from 450 to 4,000 gpm. The total system capacity of the City's groundwater wells is 30,000 gpm.¹²²

¹²² City of Huntington Beach, Water Source. http://www.huntingtonbeachca.gov/Government/Departments/Public_Works/utilities/supply/ (accessed August 23 2010).

The City also maintains three imported water connections to the Metropolitan system, and operates four storage and distribution reservoirs with a combined capacity of 55 million gallons (MG). The storage system is supported with four booster stations located at the reservoir sites. The booster pumps have a total capacity of 44,365 gpm, which is adequate to keep the system pressurized under peak flow conditions.¹²³ The existing water pipes throughout the general project area would provide some of the infrastructure necessary to provide water service to the proposed project. However, it is likely that new on-site and off-site improvements could be required to provide adequate service for the increase in water demand at the currently undeveloped project site. This would be determined through the preparation of a hydraulic water study. Implementation of hydraulic water study would ensure that adequate water infrastructure is developed to serve the proposed project. If new infrastructure is determined to be necessary, development would adhere to existing laws and regulations, and the water conveyance infrastructure shall be appropriately sized for each site-specific development, which includes potable water, domestic irrigation, and fire flow demands. Therefore, a *less than significant* impact would result, and no mitigation is required.

Water Treatment Facilities

Metropolitan treats imported water at either the Diemer Filtration Plant or the Jensen Filtration Plant, prior to distribution to its member agencies. The Diemer Filtration Plant has an operating capacity of 520 mgd and treats approximately 213 mgd, while the Jensen Filtration Plant currently has an operating capacity of 750 mgd and treats approximately 420 mgd.¹²⁴ If the proposed project's water demands were treated solely at either filtration plant, this increase in water treatment from the proposed project would represent less than 1 percent of the remaining capacities of both facilities.

Because future development under the proposed project would represent such a small amount of the remaining operating capacity at both Diemer Filtration Plant and Jensen Filtration Plant, it is anticipated that the existing plants could adequately serve the additional demand generated by the proposed project without requiring expansion to these facilities. This impact is considered *less than significant* and no mitigation is required.

Threshold	Would the proposed project have sufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements?
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Impact 4.13-2 **Implementation of the proposed project would generate an additional demand for water, but would not require water supplies in excess of existing entitlements and resources, or result in the need for new or expanded entitlements. This impact is *less than significant*.**

The proposed project would use water supplied through imported water purchases from Metropolitan and City-operated groundwater wells in the Santa Ana River Basin. These supplies would be delivered through existing City supply facilities and new water infrastructure constructed for delivery into specific

¹²³ City of Huntington Beach, Water Source. http://www.huntingtonbeachca.gov/Government/Departments/Public_Works/utilities/supply/ (accessed August 23 2010).

¹²⁴ City of Huntington Beach, *Beach and Edinger Corridors Specific Plan Environmental Impact Report* (August 2009), Section 4.7 (Utilities/Services Systems).

project sites, per the requirements of the City of Huntington Beach. As discussed previously, the proposed project includes a GPA to re-designate the use of the project site from low intensity to high intensity, to accommodate the development of the proposed senior center building on the project site. The GPA itself would not result in water demands; however, the proposed multi-purpose senior center would result in water demands. The proposed project would generate an increased demand for water of approximately 17.6 afy, as shown in Table 4.13-8 above.

As shown in Table 4.13-7, if the City maintains Citywide demand as projected under its the 2010 UWMP, supplies would exceed demand in all years beginning in 2015 and extending over the next 20 years to 2035. Table 4.13-7 identifies that the City of Huntington Beach has an adequate supply of water to meet the estimated project demand of 17.6 afy.

Water conservation within the City has improved supply reliability reducing city-wide demand by 2,228 acre-feet between 2008 and 2009. Further demand reduction could be achievable but at some point demand will “harden” and additional water conservation savings would be negligible. In order to help meet the City’s conservation goals, the following project-specific conditions should be considered for the proposed project such as:

- *Require employees to report leaks and water losses immediately and shall provide information and training as required to allow for efficient reporting and follow up*
- *Educate employees about the importance and benefits of water conservation*
- *Create water conservation suggestion boxes, and place them in prominent areas*
- *Install signs in restrooms and cafeterias that encourage water conservation*
- *Assign an employee to evaluate water conservation opportunities and effectiveness*
- *Develop and implement a water management plan for its facilities that includes methods for reducing overall water use*
- *Conduct a water use survey to update current water use needs (processes and equipment are constantly upgrading, thus changing the need for water in some areas)*
- *Repair leaks; check the water supply system for leaks and turn off unnecessary flows*
- *Utilize water-efficient irrigation systems and drought tolerant plant palette and insure that sprinklers are directing water to landscape areas, and not to parking lots, sidewalks or other paved areas*
- *Adjust the irrigation schedule for seasonal changes*
- *Install low-flow or waterless fixtures in public and employee restrooms*
- *Instruct cleaning crews to use water efficiently for mopping*
- *Use brooms, squeegees, and wet/dry vacuums to clean surfaces before washing with water; do not use hoses as brooms; sweep or blow paved areas to clean, rather than hosing off (applies outside, not inside)*
- *Avoid washing building exteriors or other outside structures*
- *Sweep and vacuum parking lots/sidewalks/window surfaces rather than washing with water*
- *Switch from “wet” carpet cleaning methods, such as steam, to “dry,” powder methods; change window-cleaning schedule from “periodic” to “as required”*
- *Set automatic optic sensors on icemakers to minimum fill levels to provide lowest possible daily requirement; ensure units are air-cooled and not water-cooled*
- *Control the flow of water to the garbage disposal*

- *Install and maintain spray rinsers for pot washing and reduce flow of spray rinsers for prewash*
- *Turn off dishwashers when not in use—wash only full loads*
- *Scrape rather than rinse dishes before washing*
- *Operate steam tables to minimize excess water use*
- *Discontinue use of water softening systems where possible*
- *Ensure water pressure and flows to dishwashers are set a minimum required setting*
- *Install electric eye sensors for conveyor dishwashers*
- *Install flushometer (tankless) toilets with water-saving diaphragms and coordinate automatic systems with work hours so that they don't run continuously*
- *Use a shut-off nozzle on all hoses that can be adjusted down to a fine spray so that water flows only when needed*
- *Install automatic rain shutoff device on sprinkler systems*

In addition, the City's Water Efficient Landscape ordinance (Municipal Code 14.52) is designed to reduce new water demand at developments. The ordinance guides new development projects through the process of designing, installing and maintaining water efficient landscaping. Because the reduction of outdoor water use is where the greatest amount of water can be saved, it is essential to continue to implement this ordinance.

The following mitigation measure related to impacts associated with water supply availability was initially identified in the Central Park Master Plan EIR. The language in this measure has been modified for this project to reflect project-specific components of the proposed senior center where necessary, although their intent remains the same. The original measures from the Central Park Master Plan EIR appear in Table 4-1 of this EIR.

For the purposes of this document, the City shall implement mitigation measure MM4.13-1, which would ensure that measures set forth in the Central Park Master Plan EIR are carried over:

MM4.13-1 (This MM is Measure Utilities-7 from the Central Park Master Plan EIR.)

If the Green Acres Project is not yet operational and able to supply water to the program level elements of the Master Plan prior to the development of final plans and specifications, additional studies will be undertaken to determine the extent to which one or a combination of the following measures will be necessary to reduce impacts to water supply systems for program level elements during the interim until water from the Green Acres Project is available.

- *Reduce the required irrigable areas by 10 percent*
- *Enhance the utilization of existing groundwater systems (i.e., subpotable wells)*
- *Supplement the irrigation supply with water from the domestic water system*

Implementation of mitigation measure MM4.13-1 would further ensure availability of water supplies to accommodate the proposed project. Impacts would remain ***less than significant***.

In summary, the proposed project's water demand was accounted for in the City's 2010 UWMP and it has been demonstrated that supplies from MWDOP and the Santa Ana subbasin are sufficient to meet the water demand in all years. Water conservation programs and practices like those shown above would improve water supply reliability. Therefore, the impact to water supplies would be ***less than significant***.

Wastewater

4.13.4 Environmental Setting

The City owns, operates, and maintains a wastewater collection system that includes gravity pipelines, manholes, lift stations, and force mains. This system serves over 95 percent of the areas within the City, and several small areas within the Cities of Westminster, Seal Beach, Newport Beach, and Fountain Valley. The City's wastewater system would provide service to the proposed project.¹²⁵

■ Infrastructure

The City's wastewater collection system is comprised of approximately 350 miles of wastewater pipelines ranging in size from 6 to 30 inches in diameter. Approximately 85 percent of the City's wastewater pipelines are 8 inches in diameter. Due to the City's generally flat topography, the City also operates and maintains twenty-seven lift stations, varying in capacity from approximately 80 gpm to 1,350 gpm.¹²⁶ These facilities lift sewage from low points in the collection system to manholes at higher locations. Combined transport of the City's wastewater collection system is an estimated 24.3 mgd.¹²⁷ An existing 15-inch sewer line operated by the City runs in an east-west direction south of the project site (off site), and then continues in a north-south direction parallel to Goldenwest Street across the eastern portion of the project site. This 15-inch sewer line connects to another 18-inch City-owned sewer line along Goldenwest Street.¹²⁸

The OCSD is responsible for receiving, treating, and disposing of the wastewater generated in central and northwest Orange County, including the City's wastewater. In this regional management capacity, OCSD owns, operates, and maintains the majority of the "backbone" wastewater collection trunk pipelines. OCSD's regional wastewater pipelines generally range in size from 21 to 108 inches in diameter and collect the City's wastewater at multiple connections. In addition to these collection facilities, OCSD has two lift stations and Wastewater Treatment Plant No. 2, which is located within the City. Given the growth within OCSD's service area, OCSD is currently upsizing a number of collection system pipelines to provide additional capacity. One of these key facilities is the 108-inch Bushard Trunk Sewer, which runs through the City to OCSD's Wastewater Treatment Plant No. 2.¹²⁹ A 42-inch OCSD sewer line is located north of the project site near the intersection of Goldenwest Street and Slater Avenue. The City-owned 18-inch sewer line along Goldenwest Street connects to this OCSD main line.¹³⁰

¹²⁵ City of Huntington Beach, Department of Public Works website (2002), http://www.surfcity-hb.org/CityDepartments/public_works/Wateroperations/wastewater (accessed April 24, 2007).

¹²⁶ City of Huntington Beach, *Citywide Sewer Master Plan* (2003).

¹²⁷ City of Huntington Beach, Department of Public Works website (2002), http://www.surfcity-hb.org/CityDepartments/public_works/Wateroperations/wastewater (accessed April 24, 2007).

¹²⁸ Chris Gray, Personal correspondence with City of Huntington Beach, Public Works (July 10, 2007).

¹²⁹ City of Huntington Beach, *Citywide Sewer Master Plan* (2003).

¹³⁰ Adam Nasara, Personal correspondence with Orange County Sanitation District (June 13, 2007).

■ Treatment Plants

OCSD manages wastewater collection and treatment for approximately 471 square miles in central and northwest Orange County, which includes 21 cities, 3 special districts, and 2.4 million residents. OCSD utilizes the following two facilities: Reclamation Plant No. 1 in Fountain Valley and Wastewater Treatment Plant No. 2 in Huntington Beach to treat a combined daily average of 264 million gallons of wastewater. Effluent from Reclamation Plant No. 1 is either routed to the ocean disposal system or is sent to the OCWD facility, Green Acres Project, for advanced treatment and recycling.

Wastewater flows from the project site would be treated by Wastewater Treatment Plant No. 2, which has a total design capacity of 168 mgd, and an existing average flow of approximately 151 mgd.

OCSD is currently undertaking wastewater treatment improvements at both wastewater treatment plants. The Supplemental EIR for these improvements was certified in 2005. Updates to ongoing activities can be found in the OCSD's 2009/10 Annual Report, Operations and Maintenance at <http://www.ocsd.com/documents/folders.asp>.

4.13.5 Regulatory Framework

■ Federal

Federal Water Pollution Control Act (Clean Water Act)

The major piece of federal legislation dealing with wastewater is the federal *Water Pollution Control Act*, which is designed to restore and preserve the integrity of the nation's waters. The federal *Water Pollution Control Act*, popularly known as the *Clean Water Act*, is a comprehensive statute aimed at restoring and maintaining the chemical, physical, and biological integrity of the nation's waters. Enacted originally in 1948, the Act was amended numerous times until it was reorganized and expanded in 1972. It continues to be amended almost every year. In addition to the federal *Water Pollution Control Act*, other federal environmental laws regulate the location, type, planning, and funding of wastewater treatment facilities.

■ State

Operation of Wastewater Treatment Plant No. 2 is subject to regulations set forth by the California Department of Health Services and the California State Water Resources Control Board.

■ Regional

Regional Water Quality Board

Under the Santa Ana Regional Water Quality Control Board (SARWQCB) National Pollutant Discharge Elimination System (NPDES) permit system, all existing and future municipal and industrial discharges to surface waters within the City would be subject to regulations. The Orange County NPDES permit requires that all development within the City is subject to the provisions of the Orange County NPDES Storm Water Permit. The NPDES storm water permit was issued by SARWQCB for municipal storm water and urban runoff discharges within Orange County, and incorporated cities therein.

■ Local

City of Huntington Beach Municipal Code

The City of Huntington Beach Municipal Code Chapter 14.25 contains regulations associated with stormwater and urban runoff management. Permits are required for any alterations or connections to the existing sewage system, and for industrial waste dischargers.

General Plan Utilities Element

The City's General Plan Utilities Element focuses on the City's water supply, sanitation treatment, storm drainage, solid waste disposal, natural gas, electricity, and telecommunications systems. Applicable goals and policies of this element related to wastewater systems and facilities include the following:

- Goal U2** Provide a wastewater collection and treatment system which is able to support permitted land uses; upgrade existing deficient systems; and pursue funding sources to reduce costs of wastewater service provision in the City.
 - Objective U.2.1** Ensure the City provides and maintains a wastewater collection and treatment facilities system which adequately conveys and treats wastewater generated by existing and planned development at maximized cost efficiency.
 - Policy U.2.1.1** Approve and implement development in accordance with the standards identified in the Growth Management Element.
 - Policy U.2.1.5** Maintain, upgrade, and expand existing wastewater collection and treatment facilities.
 - Policy U.2.1.6** Require that sewer capacity is available before building permits are issued for new development.
 - Objective U.2.2** Ensure the costs of wastewater infrastructure improvements are borne by those who benefit.
 - Policy U.2.2.1** Require the costs of improvements to the existing wastewater collection facilities, which are necessitated by new development, to be borne by the new development benefiting from the improvements; either through the payment of fees, or by the actual construction of the improvements in accordance with State Nexus Legislation.

Consistency Analysis

Implementation of the proposed project would include the construction of necessary utilities on site, including wastewater conveyance lines. Sewer lines for the proposed project would be sized appropriately

for the anticipated wastewater flow, and in accordance with the requirements of the City's Public Works Department. It is anticipated that increased flows anticipated from the proposed project would not result in required upgrades to current treatment facilities. The construction of wastewater conveyance lines in accordance with the projected size and outflow of the project site would not conflict with the applicable goals, objectives, and policies of the City's General Plan Utilities Element.

4.13.6 Project Impacts and Mitigation

■ Analytic Method

In general, wastewater generation is approximately 70 to 90 percent of the water demanded, or consumed by the development, the variance being largely attributed to the amount of landscaping on site. In order to provide a conservative analysis, it is assumed that 90 percent of the water demand would become wastewater. Assuming the proposed project would generate a water demand of 15,750 gpd, this would yield an estimated wastewater generation of 14,175 gpd. The new wastewater discharge from the proposed project would place additional demand upon regional treatment facilities.

To determine wastewater impacts associated with implementation of the proposed project, estimated future wastewater flows are compared to the capacity of the wastewater treatment plants to determine whether sufficient capacity exists and/or whether there is the need for additional wastewater treatment systems.

■ Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2011 CEQA Guidelines. For the purposes of this EIR, implementation of the proposed project may result in a potentially significant impact if the proposed project would cause either of the following results:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board
- Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects
- Include a new or retrofitted storm water treatment control Best Management Practice (BMP), (e.g., water quality treatment basin, constructed treatment wetlands), the operation of which could result in significant environmental effects (e.g., increased vectors and odors)¹³¹
- Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments¹³²

¹³¹ According to the Citywide Urban Runoff Management Plan (2010), the City has included this threshold to the Initial Study Checklist Appendix G of the CEQA Guidelines in its CEQA preparation and review process for proposed projects. The Initial Study prepared for the proposed project did not incorporate this threshold; thus, it has been included in this EIR analysis.

¹³² This standard has been slightly modified from the text found in CEQA Guidelines, Appendix G, for ease of comprehension.

■ Impacts and Mitigation Measures

Threshold	Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
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Impact 4.13-3 **Implementation of the proposed project would not exceed wastewater treatment requirements of the SARWQCB. This impact is considered *less than significant*.**

The NPDES permit system requires that all existing and future municipal and industrial discharges to surface waters within the City be subject to specific discharge requirements. The proposed project would not result in the discharge of wastewater to any surface water. Instead, operational discharges would be sent to the project's sewer system, which would ultimately be treated at one or more of the OCSD wastewater treatment plants. The OCSD wastewater treatment plants are required to comply with their associated waste discharge requirements (WDRs). WDRs set the levels of pollutants allowable in water discharged from a facility.

Compliance with any applicable WDRs, as monitored and enforced by the OCSD, would ensure that the proposed project would not exceed the applicable wastewater treatment requirements of the SARWQCB with respect to discharges to the sewer system. This would result in a *less than significant* impact. No mitigation measures are required.

Threshold	Would the project require or result in the construction of new or expanded wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
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Impact 4.13-4 **Implementation of the proposed project would require new sewer connections, but would not require or result in the construction of new or expanded wastewater conveyance systems. This impact is considered *less than significant*.**

Implementation of the proposed project would include a GPA to re-designate the use of the project site from low intensity to high intensity, to accommodate the development of the proposed senior center associated open space/landscaped areas on the project site. Implementation of the proposed GPA would result in a departure from the anticipated low-intensity, passive recreational uses and instead would result in a high-intensity use on the site. Under both designations, the existing undeveloped conditions of the project site would not remain. While the GPA itself would not result in direct physical environmental impacts to wastewater systems, development of the senior center would result in physical changes to the project site, the effects of which are analyzed in this section.

The City of Huntington Beach Public Works Department and OCSD maintain the sanitary sewer system into which the proposed project would discharge. As discussed above, the GPA itself would not require wastewater services; however, development of the senior center building would increase the amount of wastewater transported by the City's sewer system by approximately 14,175 gpd (0.014 mgd).

It is anticipated that development on the project site would connect to the City sewer system at a 15-inch sewer line that runs across the eastern portion of the project site, parallel to Goldenwest Street.

According to the City's Public Works Department, this line has adequate capacity to serve the proposed project.¹³³ The 15-inch sewer line would then connect to the City's 18-inch sewer line along Goldenwest Street, and eventually connect to OCSD's 42-inch main on Slater Avenue. OCSD has determined that its existing infrastructure can adequately support the proposed project.¹³⁴

Similar to water distribution systems, the proposed project would require the construction of new wastewater collection systems within the project site and are considered part of overall project construction. Construction of the wastewater collection systems would adhere to existing laws and regulations, and the infrastructure would be sized appropriately for the future development.

As required by OCSD, any person connecting to the OCSD sewer system is required to pay a connection fee in accordance with the OCSD Connection Fee Master Ordinance. With respect to discharges that constitute an increase in the existing strength and/or quantity of wastewater attributable to a particular parcel or operation already connected, the connection fee shall be based on the increase in anticipated use of the sewage system.¹³⁵ The Connection Fee Program ensures that all users pay their fair share of any necessary expansion of the system, including expansion to wastewater treatment facilities. These fees are considered full mitigation under CEQA for potential impacts resulting from project development. Therefore, this impact is considered *less than significant*.

Threshold	Would the project include a new or retrofitted stormwater treatment control Best Management Practice (BMP), (e.g., water quality treatment basin, constructed treatment wetlands), the operation of which could result in significant environmental effects (e.g., increased vectors and odors)?
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Impact 4.13-5 **Implementation of the proposed project would include new stormwater treatment control BMPs, the operation of which would not result in significant environmental effects. This impact is considered *less than significant*.**

Refer to Section 4.7 for a detailed discussion of stormwater treatment.

The proposed project would involve the construction and operation of stormwater treatment control Best Management Practices (BMPs) that would be identified in a Stormwater Pollution Prevention Plan (SWPPP), which would be a part of the project's Water Quality Management Plan (WQMP). As discussed in the Citywide Urban Runoff Management Plan, the City has general/standard conditions of approval to protect receiving water quality from short- and long-term impacts of new development and significant redevelopment, which include the following City requirements (CR).¹³⁶

CR4.13-1(a) *Prior to grading activities, the Developer shall demonstrate, by providing a copy of the Notice of Intent submitted to the State Water Resources Control Board (SWRCB) and a copy of the subsequent issuance of a Waste Discharge Identification number, that coverage has been obtained under the General Permit. Projects subject to this requirement shall also prepare, submit, and implement a Stormwater Pollution Prevention Plan.*

¹³³ Chris Gray, Personal correspondence with City of Huntington Beach, Public Works (July 10, 2007).

¹³⁴ Adam Nasara, Personal correspondence with Orange County Sanitation District (June 13, 2007).

¹³⁵ Adam Nasara, Personal correspondence with Orange County Sanitation District (June 13, 2007).

¹³⁶ City of Huntington Beach, *Citywide Urban Runoff Management Plan* (January 2010).

CR4.13-2(b) *Prior to issuance of certificate of use or occupancy, the developer shall demonstrate that all structural and non structural BMPs described in the WQMP have been installed and implemented in conformance with approved plans and specifications, and that all storm drain structures are clean and properly constructed.*

Since stormwater treatment control BMPs must be in conformance with approved plans and specifications of appropriate agencies, operations would not be anticipated to result in significant environmental effects including, but not limited to, vectors or odors. Therefore, the project’s impacts on environmental effects as a result of stormwater treatment control operations would be ***less than significant***. No mitigation is required.

Threshold	Would the project result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
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Impact 4.13-6 **Implementation of the proposed project would not increase wastewater generation such that treatment facilities would be inadequate to serve the project’s projected demand in addition to the provider’s existing commitments. This impact is considered *less than significant*.**

As discussed previously, the GPA itself would not require wastewater services; however, the proposed project also includes construction of a multi-purpose senior center that would require wastewater services. The proposed project’s wastewater generation is estimated to be 14,175 gpd (0.014 mgd), which would minimally increase the demand upon regional treatment facilities.

Wastewater Treatment Plant No. 2 has a capacity of approximately 168 mgd of wastewater, with a current flow of approximately 151 mgd. Based on the current capacity of the Wastewater Treatment Plant No. 2, the treatment plant would have adequate capacity to treat the wastewater generated by the proposed project. The proposed project would represent less than 1 percent of the remaining treatment capacity. In addition, OCSD has determined that they have plans to upgrade the facility to expand treatment capacity. As such, construction or expansion of wastewater treatment facilities is not anticipated to be necessary to serve the project’s needs.

The City would obtain a “will serve” letter from OCSD in order to construct the project, meaning that the OCSD would confirm that adequate treatment capacity is available over the long term to serve the project and commit to provide treatment service. In addition, the proposed project would be required to adhere to existing laws and regulations associated with wastewater discharge and treatment requirements. Therefore, the project’s impacts on wastewater treatment facilities would be ***less than significant***. However, the following mitigation measure was recommended by the OCSD to help further reduce wastewater flows from the proposed project.¹³⁷

MM4.13-2 *The developer shall install low-flow water devices and waterless urinals as part of the project.*

Implementation of mitigation measure MM4.13-2 would further ensure adequate capacity of wastewater facilities to accommodate the proposed project. Impacts would remain ***less than significant***.

¹³⁷ Adam Nasara, Personal correspondence with Orange County Sanitation District (June 13, 2007).

Solid Waste

4.13.7 Environmental Setting

Currently, Rainbow Disposal is the exclusive hauler of all solid waste for the City of Huntington Beach. Rainbow Disposal has an agreement with the City to haul commercial waste but will not take liquids or hazardous materials, such as paint, oil, solvents, chemicals, or tires per state law. In addition, they do not accept sod, manure, lumber, concrete, or construction debris. However, the County of Orange provides free household hazardous waste collection centers, one of which is located at the Rainbow Disposal Transfer Station in Huntington Beach.

Rainbow Disposal operates a Transfer Station, located at 17121 Nichols Street within the City of Huntington Beach, and two Materials Recovery Facilities (MRFs) through which all solid waste is processed. A transfer station is a solid waste facility where smaller refuse-collection vehicles dump their loads of waste onto a tipping floor. This waste is then placed into larger transfer vehicles for transport to the point of ultimate disposal. Use of this type of facility reduces hauling costs and also reduces the number of trucks on the highway. Rainbow Disposal's Transfer Station has a design capacity of 2,800 tons per day, and is currently only at approximately 71 percent utilization¹³⁸. At the MRFs, trash is mechanically and manually sorted in order to ensure that the maximum amount goes towards recycling and the minimum amount is separated for landfill disposal.

One MRF primarily processes residential solid waste, and the other MRF processes residential and quasi-industrial solid waste, including construction waste. Construction-related waste is processed at various steps including sorting at the site followed by sorting at the tipping deck at the MRF. Thus, construction-related solid waste is processed via a primary and secondary sort, while the majority of solid waste is processed solely through a secondary (or dirty) sort.

As of 2006, which represents the most recent data available, the City of Huntington Beach maintained a 71 percent diversion rate from the Orange County landfills, which exceeds the AB 939 requirement of 50 percent diversion of solid waste by the Year 2000.¹³⁹

The Orange County Integrated Waste Management Department (IWMD) currently 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 20,500 tons per day. Class III landfills accept only non-hazardous municipal solid waste for disposal; no hazardous or liquid waste can be accepted. Table 4.13-9 (Landfill Capacity) shows the existing capacities of each of these landfills, as well as their anticipated closure dates and annual usage.

¹³⁸ City of Huntington Beach, *Beach and Edinger Corridors Specific Plan Environmental Impact Report* (August 2009), Section 4.14 (Utilities/Service Systems).

¹³⁹ California Integrated Waste Management Board, Jurisdiction Profile for Huntington Beach (Diversion Rate), <http://www.calrecycle.ca.gov/Profiles/Juris/JurProfile1.asp?RG=C&JURID=205&JUR=Huntington+Beach> (accessed November 22, 2010).

The City is under contract to the County's IWMD to dispose of all waste to the County landfill system (not a particular facility).¹⁴⁰ Presently, it is anticipated that the Orange County landfill system will have adequate capacity to operate until 2067.¹⁴¹ The Frank R. Bowerman Landfill is the closest facility to the proposed project site and would likely be the facility that accepts solid waste from the site. Frank R. Bowerman Landfill is permitted to receive a daily maximum of no more than 8,500 tons per day and is scheduled to close in approximately 2022. Therefore, if the per day capacity is reached at the Bowerman Landfill, trucks are diverted to one of the other two landfills (Olinda Alpha in Brea and Prima Deshecha in San Juan Capistrano).

Table 4.13-9 Landfill Capacity

Landfill	Location	Current Remaining Capacity (Cubic Yards)	Maximum Capacity (Cubic Yards)	Estimated Close Date	Maximum Daily Load (tons)	Annual Usage (tons)
Frank R. Bowerman	11002 Bee Canyon Access Road Irvine, CA 92602	59,411,872	127,000,000	2022	8,500	2,332,576
Olinda Alpha	1942 North Valencia Avenue Brea, CA 92823	38,578,383	74,900,000	2021	8,000	2,069,835
Prima Deshecha	32250 La Pata Avenue San Juan Capistrano, CA 92675	87,384,799	172,900,000	2067	4,000	814,488

SOURCE: CalRecycle, Active Landfill Profile for Frank R. Bowerman Landfill, <http://www.calrecycle.ca.gov/profiles/Facility/Landfill/LFProfile1.asp?COID=30&FACID=30-AB-0360> (accessed July 18, 2011); CalRecycle, Active Landfill Profile for Olinda Alpha Sanitary Landfill, <http://www.calrecycle.ca.gov/SWFacilities/Directory/30-AB-0035/Detail/> (accessed July 18, 2011); CalRecycle, Active Landfill Profile for Prima Deshecha Sanitary Landfill, <http://www.calrecycle.ca.gov/SWFacilities/Directory/30-AB-0019/Detail/> (accessed July 18, 2011).

The Regional Landfill Options for Orange County (RELOOC) Strategic Plan is a long-range strategic planning project initiated by IWMD to assess the County's existing disposal system capabilities and develop viable long-range solid waste disposal options for the County. As discussed in the latest 2007 Strategic Plan Update, Frank R. Bowerman is currently scheduled to close in 2022 but upon completion of the Plan's short-term strategy No. 2, the scheduled closure date will be 2053. In addition, Olinda Alpha has completed the Plan's short-term strategy No. 3, and the new scheduled closure date is 2021. IWMD remains committed to the implementation of both the Phase 1 (short-term) and Phase 2 (long-term) strategies identified within the Plan.¹⁴²

4.13.8 Regulatory Framework

■ Federal

There are no applicable federal laws, regulations, or policies that pertain to solid waste.

¹⁴⁰ Debra Jubinsky, Personal correspondence with City of Huntington Beach, Public Works (June 18, 2007).

¹⁴¹ CalRecycle, Active Landfill Profile for Prima Deshecha Sanitary Landfill, <http://www.calrecycle.ca.gov/SWFacilities/Directory/30-AB-0019/Detail/> (accessed July 18, 2011).

¹⁴² Orange County Integrated Waste Management Department, *Regional Landfill Options for Orange County, Strategic Plan Update* (2007), <http://www.ocgov.com/vgnfiles/ocgov/OC%20Waste/Docs/RELOOC%20Stretegic%20Plan%20Update%202007.pdf> (accessed November 22, 2010).

■ State

California Integrated Waste Management Board

At the state level, the management of solid waste is governed by regulations established by the CIWMB, which delegates local permitting, enforcement, and inspection responsibilities to local enforcement agencies. In 1997, some of the regulations adopted by the State Regional Water Quality Control Board pertaining to landfills (Title 23, Chapter 15) were incorporated with CIWMB regulations (Title 14) to form Title 27 of the California Code of Regulations.

California Solid Waste Reuse and Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act of 1991 requires each jurisdiction to adopt an ordinance by September 1, 1994 requiring each “Development Project” to provide an adequate storage area for collection and removal of recyclable materials.

AB 939—California Integrated Waste Management Act

In 1989, the State Legislature adopted the Integrated Waste Management Act of 1989 (AB939), 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 requires that each county prepare a new IWMP. The Act further required each city to prepare a Source Reduction and Recycling Element (SRRE) by July 1, 1991. Each SRRE 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

Countywide Integrated Waste Management Plan

The CIWMP consists of many parts. Each city in the County, and the unincorporated area of the County, have several planning documents that outline their proposals for waste diversion methods. Specifically, the CIWMP is composed of the Siting Element, Summary Plan, Source Reduction and Recycling Element, Nondisposal Facility Elements, and the Household Hazardous Waste Element. All of these planning documents must be kept current and are submitted to the CIWMB for approval and acceptance. The entity assigned with the task of overseeing the submittal of these documents is the County of Orange, Waste Management Commission/Local Task Force.

General Plan Utilities Element

The City’s General Plan Utilities Element (1996) focuses on the City’s water supply, sanitation treatment, storm drainage, solid waste disposal, natural gas, electricity, and telecommunications systems. Applicable goals and policies of this element related to solid waste management include the following:

Goal U 4 Maintain solid waste collection and disposal services in accordance with the California *Integrated Waste Management Act of 1989* (AB939), and pursue funding sources to reduce the cost of the collection and disposal services in the City.

Objective U 4.1 Ensure an adequate and orderly system for the collection services and the disposal of solid waste to meet the demands of new and existing development in the City.

Policy U 4.1.1 Maintain adequate solid waste collection for commercial, industrial, and residential developments in accordance with state law.

Consistency Analysis

The proposed project would be served by Rainbow Disposal, which has been contracted by the City to maintain their solid waste disposal needs in accordance with the above goal, objective, and policy. The project site would work with Rainbow Disposal to meet this goal. No actions brought forth by the proposed project would be in conflict with the goals outlined in the Utilities Element of the City’s General Plan.

4.13.9 Project Impacts and Mitigation

Analytic Method

To determine the amount of solid waste generated by the proposed project, solid waste generation factors identified by the CIWMB are applied to the square footage of the proposed project, as presented in Table 4.13-10 (Projected Solid Waste Generation). To determine solid waste impacts associated with implementation of the proposed project, estimated future solid waste generation amounts are compared to the total anticipated remaining capacity at landfills that serve the City.

<i>Type of use</i>	<i>Generation Factor (pounds [lbs]/day/sf)</i>	<i>Proposed Development (sf)</i>	<i>Solid Waste (lbs per day)</i>
Institutional			
Public/Institutional	0.007	45,000	315

SOURCE: CalRecycle, Estimated Solid Waste Generation Rates for Institutions (2011), <http://www.calrecycle.ca.gov/WASTECHAR/WasteGenRates/Institution.htm> (accessed July 18, 2011).

Thresholds of Significance

The following thresholds of significance are based on Appendix G to the 2011 CEQA Guidelines. For purposes of this EIR, implementation of the proposed project may have a significant adverse impact if it would do any of the following:

- Comply with federal, state, and local statutes and regulations related to solid waste
- Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs

■ Effects Not Found to Be Significant

Threshold	Would the project comply with federal, state, and local statutes and regulations related to solid waste?
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As a condition of approval, the project would be required to comply with all federal, state and local statutes and regulations related to solid waste handling, transport and disposal during construction and long-term operation. No impact would occur, and no further analysis of this issue is required in this EIR.

■ Impacts and Mitigation

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 4.13-7 **Implementation of the proposed project would not generate solid waste that exceeds the permitted capacity of landfills serving the City of Huntington Beach. This impact is considered *less than significant*.**

Implementation of the proposed project includes a GPA to re-designate the use of the project site from low intensity to high intensity, to accommodate the development of the proposed senior center on the project site. Implementation of the proposed GPA would result in a departure from the anticipated low-intensity, passive recreational uses and instead would result in a high-intensity use on the site. Under both designations, the existing undeveloped conditions of the project site would not remain. While the GPA itself would not result in direct physical environmental impacts to solid waste generation or landfills, development of the senior center would result in physical changes to the project site, the effects of which are analyzed in this section.

As discussed above, the GPA itself would not generate solid waste; however, the proposed multi-purpose senior center would generate solid waste and would require solid waste services. The proposed project is estimated to produce approximately 315 lbs per day and approximately 114,975 lbs (57.49 tons) per year of solid waste.

Rainbow Disposal's Transfer Station has a design capacity of 2,800 tons per day, and current utilization ranges between 53 and 71 percent. For purposes of this analysis, and assuming a worst-case scenario of 71 percent utilization, the daily solid waste contribution to this transfer station would be less than one-tenth of a percent (approximately 0.006 percent) of the entire design capacity. Utilization of the transfer station would remain at 71 percent with implementation of the proposed project. Rainbow Disposal is capable and willing to accept all commercial waste in addition to all construction waste generated by the proposed project.¹⁴³ In addition, the two Materials Recovery Facilities sort and separate all waste and recycle all appropriate materials further reducing the waste generation going to the landfills.

There are three landfills that could serve the project, which have a design capacity of between 4,000 and 8,500 tons per day. Based on landfill capacity, the solid waste contribution of 0.168 ton per day to any of

¹⁴³ Bruce Shuman, Personal correspondence with Rainbow Disposal (June 13, 2007).

the three landfills from the proposed project is a maximum of 0.004 percent of the allowed daily capacity at the three landfills.

With Rainbow Disposal willing to accept all commercial and construction waste from the project site and with sufficient current and future landfill capacity, the solid waste impacts resulting from implementation of the proposed project is considered *less than significant*. No mitigation is required.

Energy

4.13.10 Environmental Setting

For the purposes of this analysis, energy resources consist of electricity and natural gas. Electricity in the proposed project area is provided to the City by Southern California Edison (SCE), while The Gas Company provides natural gas services.

■ Electricity

The 2009 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, enormously 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 deliver 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. SCE does not currently have any facilities or infrastructure on the project site. Off site, however, there is an existing single-phase transformer located on the east side of Goldenwest Street, north of Talbert Avenue. No change to existing SCE infrastructure is proposed. Other major SCE facilities located in the City include a generating station, six substations, and switching yards.

SCE derives its electricity from a variety of sources and nearly half of its electricity comes from natural gas, with renewable resources constituting another nearly 10.6 percent.¹⁴⁴ SCE has undertaken a major infrastructure expansion and replacement project system throughout its 50,000-square-mile service area. The company has proposed investing approximately \$20 billion during coming years to expand and renew the region's essential distribution and transmission grids, making the power grid greener and

¹⁴⁴ California Energy Commission, *2009 Integrated Energy Policy Report* (December 2009).

smarter. These projects will help ensure adequate power flow and voltage for 13 million people while benefiting electricity customers in all eleven states of the western power grid.¹⁴⁵

■ Natural Gas

Natural gas is a “fossil fuel,” indicating that it comes from the ground, similar to other hydrocarbons such as coal or oil. Southern California Gas Company (SCGC) purchases natural gas from several bordering states. Most of the major natural gas transmission pipelines within the City of Huntington Beach are owned and operated by SCGC. The Public Utilities Commission (PUC) regulates SCGC, who is the default provider required by State law, for natural gas delivery to the City of Huntington Beach. 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 makes periodic upgrades to provide service for particular projects and new development. 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.

■ Federal

No federal policies related to energy would apply to the proposed project.

■ State

California Code of Regulations (CCR) Title 24

New buildings in California are required to conform to energy conservation standards specified in Title 24 of the CCR. The standards establish “energy budgets” for different types of residential and non-residential buildings, which all new buildings must comply with. The energy budget has a space-conditioning component and a water-heating component, both expressed in terms of energy (British thermal units [BTU]) consumed per year. The regulations allow for trade-offs within and between the components to meet the overall budget. Energy consumption of new buildings in California is regulated by the State Building Energy Efficiency Standards, embodied in Title 24 of the CCR. The efficiency standards apply to new construction of both residential and nonresidential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building or individual agency permit and approval processes. The City requires all new buildings to meet Title 24 standards.

¹⁴⁵ Southern California Edison, Transmission Projects (2011), <http://www.sce.com/PowerandEnvironment/Transmission> (accessed March 28, 2011).

■ Local

General Plan Utilities Element

The City's General Plan Utilities Element (1996) focuses on the City's water supply, sanitation treatment, storm drainage, solid waste disposal, natural gas, electricity, and telecommunications systems. Applicable goals and policies of this element related to gas and electricity services and facilities include the following:

- Goal U 5** Maintain and expand service provision to City of Huntington Beach residences and businesses.
 - Objective U 5.1** Ensure that adequate natural gas, telecommunication, and electrical systems are provided.
 - Policy U 5.1.1** Continue to work with service providers to maintain current levels of service and facilitate improved levels of services.
 - Policy U 5.1.2** Continue to underground above ground electrical transmission lines.

Consistency Analysis

Implementation of the proposed project would include the construction of necessary energy infrastructure on site. As discussed below, it is anticipated that the increased demand on energy would not require the construction of upgraded and/or expanded utilities that would cause significant environmental impacts. In addition, the developer would ensure that all possible transmission lines would be placed underground during the construction phase with the exception of existing lines related to the site but located outside the project site boundaries. The proposed project would not conflict with the applicable goals, objectives, and policies of the City's General Plan Utilities Element.

4.13.11 Project Impacts and Mitigation

■ Analytic Method

To determine whether or not implementation of the proposed project would result in impacts on electricity and natural gas supplies, the projected increase in energy demand for each utility was analyzed and calculated using a per-square-foot consumption rate. The anticipated electrical demand associated with the proposed project is 900 kilowatt-hour (kWh) per day. This estimated generation is based on the electrical load of an existing community center of similar size and uses as the proposed project, and is used as recommended by the SCE.¹⁴⁶ Table 4.13-11 (Projected Natural Gas Demand) provides natural gas demand associated with the proposed project.

¹⁴⁶ Arlinda Dimercurio, Personal correspondence with Southern California Edison Company (July 2, 2007).

Type of use	Energy Consumption Rates (cf/sf/month)	Proposed Development (square feet)	Natural Gas (cf/mo)	Natural Gas (cf/day)
Residential				
Public/Quasi-Public	2.9	45,000	130,500	4,350

SOURCE: SCAQMD 1993, Natural Gas Consumption Rates.
The energy consumption rates were taken from the SCAQMD CEQA Air Quality Handbook (1993).

To determine potential impacts on energy supplies resulting from implementation of the proposed project, the projected increase in electricity demand was presented to the utility providers to evaluate whether or not there would be an adequate and reliable source of electricity and natural gas for the proposed project, and whether or not any infrastructure improvements would be necessary.

■ Thresholds of Significance

The following thresholds of significance are based on Appendix F to the 2011 CEQA Guidelines, which sets forth guidelines with regard to addressing impacts of a proposed project on energy resources. For the purposes of this EIR, implementation of the proposed project may result in a potentially significant impact if the proposed project would cause either of the following results:

- 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
- Encourage the wasteful or inefficient use of energy

■ Effects Not Found to Be Significant

The IS/NOP prepared for the project did not evaluate potential impacts of the proposed project on electricity and natural gas utilities. As such, effects of the proposed project were not determined.

■ Impacts and Mitigation

Threshold	Would the project 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?
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Impact 4.13-8 **Implementation of the proposed project could increase the demand for electricity, and could require or result in the construction of new energy production or transmission facilities. This impact is considered *less than significant*.**

As discussed above, 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. Additional energy demands resulting from the proposed project would be adequately met by current infrastructure during most of the year. On peak days, the incremental demand from the proposed project

would contribute to electricity supply and delivery constraints. The proposed project would be constructed in compliance with Title 24 energy efficiency standards. 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 proposed project.

Implementation of the proposed project includes a GPA to re-designate the use of the project site from low intensity to high intensity to accommodate the construction of the proposed senior center on the project site. Implementation of the proposed GPA would result in a departure from the anticipated low-intensity, passive recreational uses and instead would result in a high-intensity use on the site. Under both designations, the existing undeveloped conditions of the project site would not remain. While the GPA itself would not result in direct physical environmental impacts to electricity systems, development of the section center would result in physical changes to the project site, the effects of which are analyzed in this section.

As discussed above, the GPA itself would not generate demand for energy resources; however, the proposed multi-purpose senior center would increase the use of electricity at the project site for lighting, heating, and air conditioning. The daily electricity consumption by the proposed project is estimated to be approximately 900 kWh/day. There is currently no existing infrastructure on the project site to provide electrical services to the proposed project. According to the SCE, the existing transformer located on the east side of Goldenwest Street, north of Talbert Avenue, would not be able to provide the anticipated electrical demand of 900 kWh/day generated by the proposed project.¹⁴⁷

As such, according to SCE, new electrical facilities would have to be constructed on site. The proposed project would likely require a three-phased 12,208-volt transformer typical of most commercial buildings. In order to accomplish this, construction activities may include trenching and construction of a new conduit, structure pad, and transformer. However, this estimate is based on preliminary information and consultation with the SCE. Once final site plans are prepared for the proposed project, additional consultation with SCE would be required to verify the electrical load of the project and determine the type and location of structures to be constructed. In addition, SCE would need to work with electrical engineers to determine the most practicable location of the facilities.¹⁴⁸

As a result, the electricity demand generated by the proposed project would require the need for additional construction or expansion of energy facilities beyond that which was previously planned. Therefore, this impact would be potentially significant. The following mitigation measure related to impacts associated with energy usage was initially identified in the Central Park Master Plan EIR. The language in this measure has been modified for this project to reflect project-specific components of the proposed senior center where necessary, although intent remains the same.

For the purposes of this document, the City shall implement mitigation measure MM4.13-3, which would ensure that measures set forth in the Central Park Master Plan EIR are carried over:

MM4.13-3 (This MM is Measure Utilities-9 from the Central Park Master Plan EIR.)

¹⁴⁷ Arlinda Dimercurio, Personal correspondence with Southern California Edison Company (July 2, 2007).

¹⁴⁸ Arlinda Dimercurio, Personal correspondence with Southern California Edison Company (July 2, 2007).

Prior to construction of program level elements, additional electrical load analyses shall be undertaken to determine the need for additional electrical transformers.

Implementation of mitigation measure MM4.13-8 would reduce potentially significant impacts associated with the anticipated electrical demands of the proposed project to a ***less than significant*** level by ensuring availability of electrical facilities.

Impact 4.13-9 **Implementation of the proposed project could increase the demand for natural gas, but would not require or result in the construction of new gas production or transmission facilities. This impact is considered *less than significant*.**

As shown in Table 4.13-6 (Projected Natural Gas Demand), the proposed multi-purpose senior center building would generate a demand for natural gas of approximately 4,350 feet³/day (the proposed GPA would not, in itself, generate demand for natural gas). The proposed project would be served by existing gas lines located in various locations within the vicinity of the project site.¹⁴⁹

As SCGC declares itself a “reactive” utility that will provide natural gas as customers request its services, SCGC has indicated that an adequate supply of natural gas is currently available to serve the proposed project and that the natural gas level of service provided to the surrounding area would not be impaired by the proposed project. New natural gas lines to serve the project site would be located underground and would be constructed in accordance with SCGC’s policies and extension rules on file with the CPUC at the time contractual agreements are made. Because the natural gas demand projected for the proposed project would not exceed available or planned supply, new infrastructure would not be required to serve the project site. Therefore, this impact would be ***less than significant***, and no mitigation is required.

Threshold	Would the project encourage the wasteful or inefficient use of energy?
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Impact 4.13-10 **Implementation of the proposed project would not result in the wasteful or inefficient use of energy by the proposed project. This impact is considered *less than significant*.**

As discussed in the Regulatory Framework section above, all new buildings are required to conform to the energy conservation standards specified in CCR Title 24. In order to conform to CCR Title 24, efficient energy use would be enforced and would ensure that a ***less than significant*** impact remains with respect to the wasteful or unnecessary use of energy. No mitigation is required.

4.13.12 Cumulative Impacts: Water Supply, Solid Waste, Wastewater, Energy

The geographic context for the City’s analysis of cumulative water supply impacts is the service area of the Orange County Water District, including all anticipated cumulative growth represented by full implementation of the General Plan, and the specific projects identified by Table 3-4 (List of Related Development Projects) in Chapter 3 (Project Description).

¹⁴⁹ Michael Harriel, Written correspondence with Technical Supervisor, Southern California Gas Company (May 22, 2007).

The geographic context for cumulative impacts related to water is the City of Huntington Beach and part of the Orange County Water District which serves the City in order to supplement city wells and share programs.

The geographic context for cumulative impacts for all other utilities is the service areas for each of the utility providers (e.g., OCSD, OCIWMD).

■ Water Supply

The geographic context for the analysis of cumulative impacts associated with water systems would be within Metropolitan's regional boundaries and the service area of the City of Huntington Beach.

All cumulative development, including the proposed project could include the construction of necessary water conveyance pipeline upgrades, both on- and off-site, to serve future development. Per City requirements, the water lines associated with new development are required to be sized appropriately for the anticipated design average day demand and appropriate peaking factors. Construction of water conveyance infrastructure is considered an integral part of the overall construction plan of any development, when required. Because all cumulative development, including the proposed project, would be required to adhere to existing laws and regulations, and the infrastructure would be appropriately sized for each site-specific development, this is considered a *less than significant* cumulative impact.

The demand for groundwater generated by existing and cumulative development is not anticipated to require additional treatment facilities because wellhead treatment is provided directly at the originating wells prior to distribution throughout the City's service area. If the City's 2010 water demands of 31,845 afy (24.4 mgd) were treated solely at either the Diemer Filtration Plant or the Jensen Filtration Plant, this increase would represent less than 1 percent of the remaining capacities of both facilities. Because existing and cumulative development within the City represents a fraction of the remaining operating capacity at both Diemer Filtration Plant and Jensen Filtration Plant along with the groundwater supplies, it is anticipated that the existing plants and wells could adequately serve the City's demands without requiring expansions to these facilities. In terms of groundwater, the wellhead treatment systems associated with the City's ten wells can adequately treat the water demands associated with the City's existing and planned future uses which is managed and maintained by Metropolitan. Therefore, as a result of anticipated cumulative growth in water demand within the City's service area, no new or expanded water treatment facilities. Therefore, this cumulative impact is considered *less than significant*.

As previously, total potable supplies within the City are composed of local groundwater and imported water. Current and projected water supplies from imported water and groundwater are shown in Table 4.13-1 above. Future projects would use water supplied through imported water purchases from Metropolitan and City-operated groundwater wells in the Santa Ana River Basin. These supplies would be delivered through existing City supply facilities and new water infrastructure constructed for delivery onto specific project sites, per the requirements of the City of Huntington Beach. The City, through its permitting process can require the proposed project to comply with all current and any new City policies and ordinances, implement water efficiency measures to be identified in the City's future Water Use Efficiency Master Plan, and increase the conservation level per the City's adopted Urban Water

Management Plan. Water demand will hit a point at which water conservation savings will harden (stay fixed) and further savings will not be observed. Further, this also assumes that demand stabilizes at or near its current low point and then would not return to pre-drought conditions. As modeled in this analysis, if citywide water demand remains near 33,000 acre-feet and additional supplies remain stable and consistent then the proposed project's impact on water supplies would be *less than significant*. No additional mitigation would be necessary; however, the implementation of the City's water efficiency and conservation measures are required.

■ Wastewater

The RWQCB, in connection with the implementation of the NPDES program, has imposed requirements on the treatment of wastewater and its discharge into local water bodies. Wastewater produced by the proposed project would meet these requirements due to treatment capacity available at Wastewater Treatment Plant No. 2 and the implementation of wastewater BMPs. Therefore, cumulative development would not result in the exceedance of SARWQCB wastewater treatment requirements, and would have a *less than significant* cumulative impact.

Cumulative growth in the service area could result in the need for additional conveyance infrastructure; however, due to the developed nature of the service area, it is expected that such expansion of conveyance infrastructure would be minimal. As such, the project's contribution to new or expanded wastewater infrastructure facilities would not be cumulatively considerable.

Development of cumulative projects within the OCSD service area would generate additional quantities of wastewater, depending on net increases in population, square footage, and intensification of uses. These projects would contribute to the overall regional demand for wastewater treatment service. OCSD Wastewater Treatment Plant No. 2, which would be the primary treatment plant of the area around Huntington Beach, is currently operating at 151 mgd of wastewater. Although the plant is designed to treat approximately 168 mgd of wastewater, and thus is below operating capacity, according to OCSD, plans are currently in place to upgrade the plant's total treatment capacity. The proposed project would generate approximately 0.01 mgd of wastewater, which represents a very small fraction of one percent of the total current capacity of the plant. In addition, the City would continue to implement water conservation measures that would result in a decrease in wastewater generation. Therefore, as the plant retains excess capacity, this is considered to be a *less than significant* cumulative impact.

■ Solid Waste

Orange County IWMD has the ability to take up to 20,500 tons of solid waste a day into its three landfills as shown in Table 4.13-9 (Landfill Capacity). With the implementation of the AB939 provisions, which mandates the reduction of solid waste disposal in landfills, the amount of solid waste disposed of in landfills by build-out is required to be 50 percent lower than actual waste production. The OC IWMD has stated that it has sufficient landfill capacity to accommodate future disposal needs of the County until 2035 based on its projections, which include expansion within all of Orange County.¹⁵⁰ The proposed

¹⁵⁰ CalRecycle, Active Landfill Profile for Prima Deshecha Sanitary Landfill, <http://www.calrecycle.ca.gov/SWFacilities/Directory/30-AB-0019/Detail/> (accessed July 18, 2011).

project's anticipated solid waste generation of 0.168 ton per day represents a maximum of 0.004 percent of the allowed daily capacity of any of the three landfills serving the proposed project. Therefore, the proposed project would not create demands for solid waste services that exceed the capabilities of the County's waste management system. Consequently, cumulative impacts associated with solid waste within the County would be considered *less than significant*.

■ Energy

SCE is a private utility that generates its own electricity and independently supplies the City of Huntington Beach. SCE has stated that there is not existing electrical infrastructure on site to provide services to the proposed project. While there's a sufficient supply of energy that would accommodate the proposed project, SCE would have to construct a new transformer and associated structures to serve the proposed project. However, because SCE is able to meet future projected demands, and an action plan has been identified to address energy issues on a broader scale, cumulative impacts would be less than significant. Project impacts would have a less than significant contribution to these impacts. This is considered to be a *less than significant* impact.

With regard to natural gas, development in the geographic area surrounding the project site would result in continued use of this resource. The area surrounding the project site is currently served by existing infrastructure that the proposed project would also use. The Gas Company has stated that it can supply natural gas without jeopardizing other service commitments. The cumulative impact related to the supply of natural gas and to the need for additional or expanded facilities is less than significant, and the proposed project's contribution of 350 feet³/day to demand would not be cumulatively considerable. This is considered to be a *less than significant* impact.

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