4.14 UTILITIES/SERVICE SYSTEMS

This section of the EIR analyzes the potential environmental effects on utilities/service systems from implementation of the proposed project. This section identifies existing and planned service availability and anticipated demands. For purposes of this EIR, the utilities/service systems analysis is divided into four subsections: (1) water supply, storage, and distribution; (2) wastewater collection, transmission, and treatment; (3) solid waste collection and disposal; and (4) energy (electricity and natural gas) use. Cumulative impacts associated with water supply, wastewater, solid waste, and energy are addressed at the end of each respective subsection.

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. A Water Supply Assessment (WSA) was prepared for the Beach and Edinger Corridor Specific Plan (BECSP) pursuant to Water Code Sections 10910 et seq., which includes the proposed project site. The WSA identified the methodologies to calculate the water demand for the proposed project resulting from the net increases in land uses. Data for this section were taken from *Water Supply Assessment for the Beach-Edinger Corridors Specific Plan* (WSA) as well as contacts with utility providers and City staff. Full reference-list entries for all cited materials are provided in Section 4.14.5 (References).

4.14.1 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. The service area includes the BECSP area as well as the proposed 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 County[78] (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.

[78] MWDOC is a wholesale water supplier and resource planning agency that serves all of Orange County (except Anaheim, Fullerton, and Santa Ana) through 28 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.

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 Board[79] (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 and has a capacity of 11,250 gpm. The OC 44, the City's controlled connection enters the southeast portion of the City and has a capacity of 7,000 gpm.[80]

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".

Statewide Water Conditions

Over the last three years (2006–2009) California has endured a significant water crisis. After experiencing two years of drought and the driest spring on record (2008), water reserves are low. As a result, in June 2008, the Governor issued Executive Order S-06-08 declaring a statewide drought, which directed state agencies and wholesale and retail water suppliers to take immediate action to address drought conditions and water delivery reductions that exist in California. It should be noted that above-normal precipitation in water year 2009/10 helped to improve reservoir supplies, but overall statewide water supplies remain below normal.

The Delta ecosystem is waning; court-ordered restrictions on water deliveries from the Delta have forced the Department of Water Resources (DWR) to restrict pumping in the Delta to protect the threatened delta smelt and other salmonid species, effectively reducing the amount of water available to Metropolitan and other SWP contractors by up to 30 percent.

In addition, drought conditions in the Colorado River Basin have reduced the amount of water available through the CRA leaving many southern California communities with mandatory restrictions on water use and/or rising water bills.

Metropolitan Water Supply Allocation Plan

Due to drought conditions and the uncertainty regarding future pumping operations from the SWP, Metropolitan has worked with member agencies to put together a Water Supply Allocation Plan (Met WSAP). The plan allocates water to members (indirectly to the City) based on the Regional Shortage Level experienced in Metropolitan's service area; higher regional shortages result in larger supply cutbacks. On February 12, 2008, the Metropolitan Board of Directors officially adopted the Met WSAP.

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[79] 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.
[80] City of Huntington Beach, Water Source, http://www.huntingtonbeachca.gov/Government/Departments/Public_Works/utilities/supply/ (accessed August 23, 2010).

For future years in which Metropolitan's supplies are insufficient to meet firm demands, imported supplies to MWDOC will be managed in accordance with the Met WSAP. This includes sample calculations for determining a particular member agency's allocation, as well as estimated retail and wholesale reliability for member agencies based on a given percent reduction in total supply (shortage percentage).

The shortage percentages, which correspond to designated shortage levels outlined in the Met WSAP, cover 5 percent increments from 5 to 50 percent. Under each shortage level, there are specific wholesale minimum allocations for each member agency. The Met WSAP includes graphs and tables showing an estimate of the wholesale minimum allocations for each of the member agencies in a Level 2 Regional Shortage (10 percent), Level 4 Regional Shortage (20 percent), and in a Level 6 Regional Shortage (40 percent). Table 4.14-1 (Wholesale Reliability for Imported Supplies within the Basin) shows the level of regional shortage by percentage for the MWDOC basin.

Table 4.14-1 Wholesale Reliability for Imported Supplies within the Basin

Shortage Percentage (Regional Shortage)	*Level 2 Regional Shortage 10%*	*Level 4 Regional Shortage 20%*	*Level 6 Regional Shortage 40%*
MWDOC (in basin)	94.9%	89.2%	78.3%

SOURCE: Metropolitan Water District of Southern California. Board of Directors, Water Planning and Stewardship Committee. February 12, 2008 Board Meeting. *Attachment 2. Values shown are for the proposed formula*.

The Metropolitan Board of Directors approved the implementation of Metropolitan's Met WSAP at a Level 2 on April 14, 2009. This action was taken in order to manage demands through the period of July 1, 2009, through June 30, 2010, given the limited supplies available in the current calendar year, including limiting withdrawals of storage in order to maintain reasonable reserve levels.

2010 Regional Water Supply Conditions

Since implementing the WSAP last year, Metropolitan's member agencies (including MWDOC) have not only met their reduction levels but have exceeded them by a significant margin. Currently, Metropolitan is 16 percent below its service area allocation target. In other words, water demand remains high, even though public response to demand reduction has been positive. Unfortunately, water supply conditions have not dramatically improved for 2010, and regional storage reservoirs remain at low levels.

In April, Metropolitan's Board reviewed water supplies estimates and demand projections for 2010, and determined there still remains uncertainty as to whether the final SWP allocation will be high enough to meet demand. The continuation of allocations for a second year in a row will prevent the depletion of further storage and reduce Metropolitan's risk for future years. As a result of these findings, Metropolitan will continue its water supply allocation at the shortage Stage Level 2.[81] This action was taken in order to manage demands through the period of July 1, 2010, through June 30, 2011.

[81] Meeting of the Board of Directors of the Municipal Water District of Orange County (June 14, 2010).

MWDOC Information

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, presently account for about 50 percent of MWDOC's direct water use by its members. The remaining 50 percent of direct water use demand is met by imported water from Metropolitan.

MWDOC's Water Supply Allocation Plan

In accordance with Metropolitan's action in April 2010, MWDOC's Board: (1) Declared a regional water shortage in its service area; (2) Adopt a resolution calling for the implementation of MWDOC's Water Supply Allocation Plan effective July 1, 2010; and (3) Authorized the General Manager to implement the Plan at the Regional Shortage Level 2 to its twenty-eight client agencies in Orange County.[82]

OCWD Water Supply Planning

OCWD was formed in 1933 by a special act of the California Legislature to protect the groundwater basin. The District is neither a wholesale nor a retail water provider; rather, the District 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 the other water and wastewater agencies.

OCWD's allowable Basin Pumping Percentage (BPP) establishes the annual pumping percentage per OCWD member and may vary annually. 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,

[82] Meeting of the Board of Directors of the Municipal Water District of Orange County (June 14, 2010).

but not eliminate, production above the BPP. The BEA can be increased as needed to discourage production above the BPP. Currently, the BPP is set 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.[83]

Supplies within the City of Huntington Beach

Total potable supplies within the City are composed of local groundwater and imported water. The MWDOC's WSAP formula was used to determine water supplies to the City under the current hydrologic conditions. Base Period supplies were formulated by calculating supply deliveries from 2004 - 2006 and then factoring in conservation credits and other specific adjustments. Therefore, for comparison purposes normal "Base Year" supply, "WSAP Year" supply, and various demand scenario comparisons are presented in this analysis.

For conservative water supply planning purposes, these same supply quantities were then extended over the 20-year planning horizon and supplies are held constant according to the prescribed allocation rate. For example, Base Period supplies of 33,323 afy remain the same over the 20-year planning horizon and each WSAP Stage is presented in the same manner. Table 4.14-2 (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 could expect to receive 33,323 afy.

Table 4.14-2 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***

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

However, as previously discussed, due to reduced statewide water supplies under WSAP Stage 2 supply allocation, the City can expect 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 4.14-3 (MWDOC's WSAP Stage 2 Supplies with 2009 BEA of 2% or 64% Groundwater [afy]), under MWDOC's WSAP

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

Stage 2, additional groundwater pumping within BEA restriction could increase annual supplies by 1,776 acre-feet.[84] Under MWDOC's WSAP Stage 3, that could increase by 1,688 acre-feet.

Table 4.14-3 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***

a. MWDOC WSAP Base Year Water Supply Allocation. Assumes 38% Imported Water from MWDOC and 62% BPP of Groundwater from OCWD, plus 2009 BEA allowance of 2%.

Table 4.14-4 (MWDOC WSAP Water Supply Allocation Schedule) shows the supplies that the City could expect to receive under various MWDOC WSAP allocations. For consistency with Metropolitan's WSDM and Five Year Supply Plan Resource Option allocations and recent implementation of Stage 2 MWDOC reductions, under MWDOC's WSAP Stage 2 beginning July 1, 2010, the City can expect to receive approximately 31,963 afy in total supplies. Under MWDOC's WSAP Stage 2, the City's allocation reduction equates to a loss of 517 afy or 12,146 acre-feet of delivered imported supplies. Under MWDOC's WSAP Stage 3, the City's allocation reduction equates to a loss of 1,120 afy or 11,543 acre-feet of imported supplies.[85]

Projected supplies are shown in Table 4.14-5 (City of Huntington Beach Supply Allocations with WSAP Stage 2 and Stage 3 Allocations—Normal, Single-Dry, and Multiple-Dry Years [2010–2030]). In addition, Table 4.14-6 (City of Huntington Beach Supply Allocations with WSAP Stage 2 and Stage 3 Allocations with BEA 2% Pumping Allowance Normal, Single-Dry, and Multiple-Dry Years [2009/10–2030]) shows the same projected supply scenario as that presented in Table 4.14-5 but includes the BEA allowance of 2 percent, thus raising the groundwater supply from 62 to 64 percent. For water supply planning purposes, the WSA prepared for this project projected further MWDOC WSAP reductions the following year and over consecutive dry years. For example, if next year is another dry year, MWDOC could initiate Stage 3 of the MWDOC WSAP and reduce deliveries accordingly. If this were the case, imported water supplies to the City would be curtailed by 1,120 acre-feet, reduced to 11,543 acre-feet, which is 30,376 afy in total supplies without the additional 2 percent BEA allowance (Table 4.14-5) and 32,064 afy in total supplies with the additional BEA allowance (Table 4.14-6). The analysis assumed that the probability of multiple dry year events could commence in any given year and extend over three years.

[84] 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.

[85] Assume 38% imported water from MWDOC and 62% BPP of groundwater from OCWD.

Table 4.14-4 MWDOC WSAP Water Supply Allocation Schedule

Allocation Schedule of Shortages[a]	*Import Allocation (afy)[b]*	*Allocation Reduction Less Base Year Supply*	*Actual Percentage Reduction from Base Year Demand*	*Percent of Supply*	*Supply Total[c]*
10% (Stage 2)	**12,146**	**517**	**4.08**	**95.92%**	**31,963**
15% (Stage 3)	**11,543**	**1,120**	**8.84**	**91.16%**	**30,376**
20%	10,732	1,931	15.25	84.75%	28,242
25%	9,920	2,743	21.66	78.34%	26,105
30%	9,108	3,555	28.07	71.93%	23,968
35%	8,296	4,367	34.48	65.52%	21,832
40%	7,484	5,179	40.90	59.10%	19,695
45%	6,672	5,991	47.31	52.69%	17,558
50%	5,861	6,802	53.71	46.29%	15,424

SOURCE: MWDOC Draft WSAP 2009 from City of Huntington Beach staff August 5, 2009

MWDOC's naming convention of the allocation of shortages shown in column 1 does not equate to an exact percentage of reduction. The actual supply reduction is shown in column 4. For consistency purposes, this EIR utilizes MWDOC's naming convention, though the actual reductions tend to be smaller (e.g., 10% reduction is closer to 4%).

a. Allocation Schedule of Shortages: Stage 2 = 10% and Stage 3 = 15%.

b. Import Allocation based on Base Year allocation of 12,663 afy.

c. Supply total Base Year Allocation of 33,323 afy. Assumes 38% Imported Water from MWDOC and 62% BPP of Groundwater from OCWD.

Table 4.14-5 City of Huntington Beach Supply Allocations with WSAP Stage 2 and Stage 3 Allocations—Normal, Single-Dry, and Multiple-Dry Years (2010–2030)

	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*	
Supply Allocation	*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 PBS&J for Water Supply and Demand Planning Purposes.

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. PBS&J 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 Year1 and due to the WSAP model WSAP Stage remains in effect over the next year as well.

Table 4.14-6 City of Huntington Beach Supply Allocations with WSAP Stage 2 and Stage 3 Allocations with BEA 2% Pumping Allowance Normal, Single-Dry, and Multiple-Dry Years (2009/10–2030)

					Multiple Dry Year Event[2]					
	Base Year Water Supply Allocation[a]		WSAP Stage 2 Allocation Single Dry Year[b]		WSAP Stage 2 Allocation Dry Year 1[c]		WSAP Stage 3 Allocation Dry Year 2[d]		WSAP Stage 3 Allocation Dry Year 3	
Supply Allocation	afy	%	afy	%	afy	%	afy	%	afy	%
Huntington Beach Allocation	33,323	100	33,739	90	33,739	90	32,064	85	32,064	85

SOURCE: Developed by PBS&J for Water Supply and Demand Planning Purposes.

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, plus 2009 BEA allowance of 2%

b. PBS&J 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 plus 2% BEA pumping.

d. Stage 3 Allocation in effect with BEA of 2% after Dry Year1 and due to the WSAP model WSAP Stage remains in effect over the next year.

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 is analyzes wholesale demand at a regional level, MWDOC assesses demand within its twenty-eight member agencies within Orange County including the City and 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, refer to the BECSP WSA and BECSP EIR (2009).

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 below in Table 4.14-7 (Historical Demands [1999–2009]) annual City demand over the last decade has decreased. Demand in 2008 was 31,691 acre-feet as compared to 34,327 acre-feet in 1999 and then in 2009 demand fell another 2,228 acre-feet to 29,463 acre-feet. Demand decreases could be contributed to significant conservation efforts and loss of tourism and accounts due to the continuing economic conditions. 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. The average annual demand over this period was 33,035 afy and the 3-year average (2006–2009) was 31,266 acre-feet.

Table 4.14-7 Historical Demands (1999–2009)	
Year	*Water Demand (afy)*
1999	34,427
2000	35,738
2001	33,893
2002	35,083
2003	33,256
2004	34,061
2005	32,561
2006	31,960
2007	32,645
2008	31,691
2009	**29,463**
Last 3-Year Average	31,266
10-Year Average (2000–2009)	33,035
Base Year Demand (per MWDOC for WSAP 2009)	33,323
MWDOC Base Year determined by demand from water years 2004–2006	

Beach and Edinger Specific Plan (BESCP) Demands

The BECSP WSA evaluated whether the projected future water supplies in the City would be sufficient to meet projected future demand of the City's retail service area, including demands generated by the BECSP, which included the proposed project. The WSA identified the water sources to be utilized by the City in the future, and discussed reliability issues with regard to each source. Table 4.14-8 (Water Demand for Beach-Edinger Corridor Specific Plan) in the WSA depicts the water demand for the entire BESCP area, which includes the proposed project. After subtracting the existing demand of 190 afy, a net increase of approximately 1,180 afy was calculated for the BECSP.

Supply and Demand Comparisons

Projected Supply and Demand with Annual Growth

Table 4.14-9 (Supply and Demand Comparison with Base Year Supplies and Demand with Annual Growth [afy]) shows the comparison of anticipated supply and calculated demand over the next 20 plus years based on MWDOC's WSAP from April 2009. Within the City, an increase in demand of 3,572 afy is anticipated between 2009 and 2030. In that same time period, under MWDOC WSAP supplies are anticipated to grow proportionally with population increases. Under this scenario, the City can expect to balance supply and demand each year between 2010 and 2030. As shown in Table 4.14-9, supplies and demand are in balance because the City only delivers what is necessary to meet daily demands.

Table 4.14-8 Water Demand for Beach-Edinger Corridor Specific Plan			
Land Use	***Generation Rates***	***Units***	***Total Demand (afy)***
Landscaping/ROW[b]	0.01 gpd/sf	473,497 sf	5 afy
Retail, restaurant; office (4,862,174 sf)			
Retail	0.15 gpd/sf	627,640 sf	105 afy
Restaurant	1.5 gpd/sf	110,760 sf	186 afy
Office	1.5 gpd/sf	112,000 sf	19 afy
Subtotal			*315 afy*
Residential–Hospitality–Medical Service (Demands with Project Implementation)			
Residential	140 gpd/DU	6,400 DU[a]	1,004 afy
Hotel	130 gpd/room	350 rooms	51 afy
Subtotal			*1055 afy*
Total			***1,370 afy***

SOURCE: PBS&J 2009 (updated in September 2010 after approval of the BESCP)

a. The BECSP WSA analyzed the potential for 6,400 new dwelling units; however, the BECSP was approved for 4,500 new dwelling units.

Table 4.14-9 Supply and Demand Comparison with Base Year Supplies and Demand with Annual Growth (afy)						
	Years					
	2009	***2010***	***2015***	***2020***	***2025***	***2030***
Supplies[a]	33,323	33,485	34,306	35,148	36,010	36,894
Demand[b]	33,323	33,485	34,306	35,148	36,010	36,894
Difference[c]	***0***	***0***	***0***	***0***	***0***	***0***

SOURCES: Developed by PBS&J for long-term water supply planning; PBS&J, *Water Supply Assessment for the Proposed Beach and Edinger Specific Plan Project*, Prepared for City of Huntington Beach (August 2009).

a. WSA Table 4-5 (City of Huntington Beach Supply Allocations with WSAP Stage 2 and 3 Allocations—Normal, Single Dry Year, and Multiple Dry Years [2009/2010–2030]).

b. WSA Table 5-8 (City of Huntington Beach Base Year Demands [afy]).

c. On an annual basis demand equals supply. No storage reserves for consumptive uses (storage is provided for fire suppression and unaccounted-for system losses are aggregated with distribution deliveries).

Projected Base Year Supply and 2008 Demand with Annual Growth Estimates

Table 4.14-10 (Supply and Demand Comparison with Base Year Supplies and 2009 Demand with Annual Growth [afy]) shows the comparison of anticipated supply and calculated demand over the next 20-plus years based on MWDOC's Draft WSAP from April 2009. Within the City, an increase in demand of 3,014 afy is anticipated between 2010 and 2030 as shown on the Demand line in Table 4.14-10. In that same time period, under MWDOC WSAP supplies are anticipated to grow proportionally with population increases. Under this Base Year supply and 2009 Demand scenario, the City can expect supplies to exceed demand each year between 2010 and 2030. As shown in Table 4.14-10, supply will exceed demand; in this case, the City has successfully met consumer demands while achieving water savings over the 20-year planning horizon.

Table 4.14-10 Supply and Demand Comparison with Base Year Supplies and 2009 Demand with Annual Growth (afy)

	Years				
	2010	2015	2020	2025	2030
Supplies[a]	33,485	34,306	35,148	36,010	36,894
Demand[b]	29,606	30,332	31,077	31,839	32,620
Difference	***3,879***	***3,974***	***4,071***	***4,171***	***4,274***

SOURCE: PBS&J, *Water Supply Assessment for the Proposed Beach and Edinger Specific Plan Project*, Prepared for City of Huntington Beach (August 2009).

a. WSA Table 4-6 (City of Huntington Beach Supply Allocations with WSAP Stage 2 and 3 Allocations—Normal, Single Dry Year, and Multiple Dry Years [2009/2010–2030]).

b. WSA Table 5-9 (City of Huntington Beach 2008 Demands without Conservation).

As shown in Table 4.14-10, if the City continues to maintain demands under this growth scenario and supplies return to Base Year conditions, then supplies would exceed demands in all years beginning in 2010 and extending over the next 20 years.

However, due to the statewide water supply situation, the actual amount of SWP water delivered to the City could be substantially less than that shown in Table 4.14-9, and Table 4.14-10; and, as a result, the water supply in the City would be less.

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.

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.[86]

4.14.2 Regulatory Framework

Refer to Section 4.14.2 (Regulatory Framework) in the BECSP Program EIR, for applicable federal, state, and local regulations that would apply to the proposed project. No new regulations have been implemented since the certification of the Program EIR.

The BECSP Development Code, which includes development standards, development regulations, and guidelines, governs all development actions with the BECSP area, including the proposed project site.

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

The proposed project would be subject to development standards specific to the proposed project site's BECSP designations of Town Center Core and Town Center Neighborhood, included as BECSP Section 2.1.3 (Town Center Core) and Section 2.1.4 (Town Center Neighborhood).

General Plan and BECSP Consistency Analysis

Implementation of the proposed project could include the construction of necessary water conveyance pipeline upgrades, both on- and off-site, to serve proposed development, as required by General Plan Policy U 1.1.1. The water lines associated with the proposed project are required to be sized to meet the average day demand with necessary peaking factors. Implementation of BECSP CR4.14-1 would ensure that adequate water infrastructure is developed to serve the proposed project. However, it is anticipated that the increase in water demand would not result in necessary upgrades to the water treatment plants. Further, mitigation measure BECSP MM4.14-1 would reinforce and expand upon the LEED-equivalent conditions for water efficiency and could further reduce the project's demand on water resources. As such, the project would be consistent with the goals, objectives, and policies contained in the BECSP and the City's General Plan.

4.14.3 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: *Water Supply Assessment for the Proposed Beach and Edinger Specific Plan Project* (PBS&J 2009); *City of Huntington Beach Urban Water Management Plan* (Huntington Beach 2005) and supporting documents.

The Water Code addresses the need for a new WSA if the original WSA showed a water supply deficiency. The statewide water supply situation affects all of southern California, including the City. As modeled in the BECSP WSA, a potential citywide supply shortfall could occur in all years over the 20-year planning horizon; however, this is based on the most conservative supply and demand model. Other models show supply and demand in balance due to additional groundwater pumping, and effective demand reductions (conservation) and/or supplemental supply purchases. Furthermore, a similar situation would occur throughout the region, and the intent of the legislature was not to burden water suppliers (the City) with the onerous task of repeating the SB 610 analysis for new projects proposed within a previously analyzed area.

In OWL vs. City of Rohnert Park, the court found that WSAs are not the vehicle for long, protracted analysis while the land use authority is trying approve projects in a timely manner, the best available data are sufficient. In this case, the BECSP WSA and the water supply section for the BECSP Program EIR evaluated the implementation of the project-specific components of the BECSP and the water demand associated with each of these components on a project level and cumulatively (citywide). The BECSP WSA concluded that due to the statewide water supply situation and challenges facing Metropolitan, the City under certain supply and demand scenarios would not have adequate supplies, but under other

scenarios modeled in the WSA demand could be less than or balance with supply. [Note: Over the last 12 months (July 2009 through June 2010) water demand within the City has continued to decline, demand was 29,463 acre-feet over that period, down from 31,691 acre-feet from the previous 12-month period]

Therefore, because the BECSP WSA fully evaluated all supply and demand scenarios that could occur in the City of Huntington Beach through 2030, this analysis finds that the need to pursue a project-specific WSA for the proposed project would be overly conservative, contrary to Water Code Section 10910(h), exceeds the intent of the legislature, is legally-defensible and for these reasons is not required.

As shown in Table 4.14-8, new development within the BECSP area would consist of residential, retail, office, and hospitality uses. Specifically, 6,400 new dwelling units and commercial uses were anticipated to be implemented through the amount of development analyzed in the BECSP EIR, which includes the 984 dwelling units and 60,000 sf retail uses in the proposed project.[87] Water use rates, which are used to determine water demands, vary depending on the form of development. Water demand rates for the proposed project were based on the generation rates demand used in the BECSP WSA. The amount of proposed development and its associated water demand is used to develop average-day water use rates, as illustrated by Table 4.14-11 (Proposed Project Land Use and Water Demand). As shown in the table, the proposed project would contribute approximately 230 afy of new water demand; however, the proposed project's water demand of 230 afy was previously analyzed as part of the BECSP projected water demand of 1,370 afy.

Table 4.14-11 Proposed Project Land Use and Water Demand

Land Use	*Generation Rates*	*Proposed Project*	
		Units	*Total Demand*
Residential	200 gpd/du	984 units	220 afy (196,800 gpd)
Retail	0.15 gpd/sf	60,000 sf	10 afy (9,000 gpd)
	Total		***230 afy (205,800 gpd)(0.21 mgd)***

SOURCE: PBS&J, *Water Supply Assessment for the Proposed Beach and Edinger Specific Plan Project*, Prepared for City of Huntington Beach (August 2009).

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2010 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

[87] The BECSP WSA analyzed the potential for 6,400 new dwelling units; however, the BECSP was approved for 4,500 new dwelling units.

Effects Not Found 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?

Impact 4.14-1 **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.***

Future development of the proposed project would allow for a maximum of 984 residential units and 60,000 sf of retail uses. The water demand for the proposed project of 230 afy (0.21 mgd) was previously considered as a portion of the BECSP projected water demand of 1,370 afy or 1.2 mgd.

As previously stated, 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.[88]

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.[89]The existing water pipes throughout the project site 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 (both public and private) could be required to provide adequate service for the increase in water demand. This would be determined through the preparation of a hydraulic water study as required by BECSP CR4.14-1. Implementation of BECSP CR4.14-1 would ensure that adequate water infrastructure is developed to serve the proposed project. Construction of

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

new water pipes would require demolition of surface improvements and excavation activities, which are proposed during project construction. If new infrastructure and other improvements are 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.

BECSP CR4.14-1 A hydraulic water capacity analysis is required to determine the water improvements necessary to adequately protect the property per the Fire Department requirements. The developer shall be required to upgrade/improve the City's water system to meet the water demands to the property and/or otherwise mitigate the impacts of the project at no cost to the City. The developer shall coordinate this effort with the Public Works and Fire Departments and shall be responsible to pay the City for all related fees required to perform the analysis using the City's hydraulic water model.

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.[90] If the proposed project's water demands were treated solely at either filtration plant, this increase 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 the proposed project without requiring expansions 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?

Impact 4.14-2 **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*.**

Statewide water supplies are currently limited by below-normal precipitation in much of the State, nine dry years in the Colorado River Basin, and a regulatory drought due to SWP pumping restrictions. However, the statewide supply situation is subject to change and could return to normal or above-normal year precipitation in the near-term and then extend over many years.

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

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

through existing City supply facilities and new water infrastructure constructed for delivery into specific project sites, per the requirements of the City of Huntington Beach. The proposed project would generate an increased demand for water of approximately 230 afy, as shown in Table 4.14-11 above. Assuming Base Year supply and demand conditions, the City has an adequate supply of water to serve the proposed project, as well as existing and future uses.

As shown in Table 4.14-8 and Table 4.14-10, if the City continues to maintain demands under this growth scenario and supplies return to Base Year conditions, then supplies would exceed demands in all years beginning in 2010 and extending over the next 20 years. According to Table 4.14-8 and Table 4.14-10 above, the City of Huntington Beach has an adequate supply of water to meet the estimated 230 afy demanded by the proposed project.

Over the short-term, it is likely that much of the imported water supply issues (Colorado River drought conditions, low reservoir storage, SWP pumping restrictions and/or other environmental/legal challenges facing Metropolitan) discussed above will remain problematic; however, over the long-term, it is more likely that supply reliability would improve as Metropolitan, through its vast array of programs (storage, transfers, and banking) increases its long-term supply reliability within its service area.

In addition, the City can pump groundwater above its BPP to improve its local supplies, although BEA surcharges would apply. Additional pumping would be coupled with the City's water use efficiency programs that are targeting increased water efficiency and conservation measures capable of achieving demand reductions greater than 20 percent citywide. The conservation and efficiency efforts improve supply reliability—in fact, the City reduced its 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 will be nil. The state's plumbing code, as changed last year, supports the use of dual plumbing systems that allow grey water or recycled water for toilet flushing or other non-potable uses in residential buildings. Additionally, water saving features inside residential units would help in this effort and could further reduce indoor residential water demand factors. In order to help meet the City's conservation goals, the following project-specific conditions were incorporated in the BECSP EIR and shall be carried over to each development project within the BECSP. Mitigation measure BECSP MM4.14-1 would reinforce and expand upon the LEED-equivalent conditions for water efficiency and could further reduce the project's demand on water resources.

BECSP MM4.14-1 *The components of future projects in the Specific Plan area shall incorporate the following measures to ensure that conservation and efficient water use practices are implemented per project. Project proponents, as applicable, shall:*

- *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 conveyer 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 demands 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 such City code. Code requirement BECSP CR4.14-2 would ensure that the Applicant would comply with the City's Water Efficient Landscape ordinance.

BECSP CR4.14-2 Prior to the issuance of a building permit for this proposed project, the Applicant shall demonstrate compliance with the City's Water Efficient Landscape ordinance (Municipal Code 14.52) in a manner approved by the City Departments of Planning and Public Works.

The City's conservation programs coupled with increased groundwater would improve water supply reliability. In addition, implementation of BECSP MM4.14-1 and BECSP CR4.14-2 would ensure that the proposed project's contribution to the BECSP demand is held to a minimum through project-level demand reductions. Therefore, the impact to water supplies would be ***less than significant*** with project-level conservation measures combined with citywide water use efficiencies and, if need be groundwater pumping above the City's BPP. Future use of recycled or gray water at the project site would further reduce demand on citywide potable supplies and potable supplies needed to serve the proposed project.

4.14.4 Cumulative Impacts

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.

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?

Conveyance Infrastructure

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.

Treatment Facilities

The City uses flexible operational procedures to deliver water to its customers, and in doing so it switches supply flows in order to keep seasonal reliability high and water moving through the conveyance facilities. 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.

Metropolitan treats imported water at either the Diemer Filtration Plant or the Jensen Filtration Plant prior to distribution to its member agencies or retail purchases. As stated previously, the Diemer Filtration Plant has an operating capacity of 550 mgd and currently produces approximately 213 mgd, while the Jensen Filtration Plant currently has an operating capacity of 750 mgd and currently produces approximately 420 mgd. If the City's 2010 water demands of 31,845 afy (24.4 mgd) were treated solely at

either 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.

Metropolitan manages and maintains its treatment plants; any improvements or expansions are the responsibility of Metropolitan and would not adversely affect the City. It would not be necessary for the City to operate a proprietary water treatment plant. In order to ensure proper distribution, Metropolitan also manages the regional conveyance system used to transport potable water supplies to the retail water agencies. 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***.

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?

As previously stated, statewide water supplies are currently limited by below-normal precipitation in much of the state, nine dry years in the Colorado River Basin, and a regulatory drought due to SWP pumping restrictions. However, the statewide supply situation is subject to change and could return to normal or above-normal year precipitation in the near-term and then extend over many years. Therefore, for comparison purposes normal "Base Year" supply, "WSAP Year" supply, and various demand scenario comparisons are presented in this analysis.

The WSA prepared for the BECSP assumed that 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 into specific project sites, per the requirements of the City of Huntington Beach. Build-out of the BECSP would generate an increased demand for water of approximately 1,370 afy, of which 230 afy would be contributed by the proposed project, as shown in Table 4.14-8 above. As shown in Table 4.14-12 (Supply and Demand Comparison with Base Year Supplies and 2009 Demand with Annual Growth [afy]), if the City continues to maintain demands under this scenario and supplies return to Base Year conditions, then supplies would exceed demand in all years beginning in 2010 and extending over the next 20 years. Water demand trends within the City have been decreasing (refer to Table 4.14-7 Historical Demand [1999–2009]) and are expected to decrease further as citywide conservation measures take hold and per capita water use continues to decrease through water conservation technology improvements, education, and public awareness. To further this trend, the legislation in SBx 7-7 (20x2020 water conservation plan) requires per capita water demand to decrease by 10 percent in 2015 and 20 percent in 2020; therefore, it is reasonable to assume that overall demand within the City's service area would continue to decrease until demand hardens and meets its minimum

consumptive use. This scenario assumes demand stabilizes at or near its current low point and then would not return to pre-drought conditions.

Table 4.14-12 Supply and Demand Comparison with Base Year Supplies and 2009 Demand with Annual Growth (afy)

	Years				
	2010	2015	2020	2025	2030
Supplies[a]	33,485	34,306	35,148	36,010	36,894
Demand[b]	29,606	30,332	31,077	31,839	32,620
Difference	***3,879***	***3,974***	***4,071***	***4,171***	***4,274***

SOURCE: PBS&J, *Water Supply Assessment for the Proposed Beach and Edinger Specific Plan Project*, Prepared for City of Huntington Beach (August 2009).

a. WSA Table 4-6 (City of Huntington Beach Supply Allocations with WSAP Stage 2 and 3 Allocations—Normal, Single Dry Year, and Multiple Dry Years [2009/2010–2030]).

b. WSA Table 5-9 (City of Huntington Beach 2008 Demands without Conservation).

Because of the statewide water supply situation the City along with the other MWDOC member agencies is operating under MWDOC's WSAP Stage 2. Assuming continuation of MWDOC's WSAP Stage 2, as shown Table 4.14-13 (Supply and Demand Comparison with MWDOC's WSAP Stage 2 and 2009 Demands [afy]) the City can anticipate a supply deficit commencing in 2030 and thereafter. This is considered a potentially significant impact.

Table 4.14-13 Supply and Demand Comparison with MWDOC's WSAP Stage 2 and 2009 Demand (afy)

	Years				
	2010	2015	2020	2025	2030
Supplies[a]	31,963	31,963	31,963	31,963	31,963
Demand[b]	29,606	30,332	31,077	31,839	32,620
Difference	***2,357***	***1,631***	***886***	***124***	***-657***

SOURCE: PBS&J, *Water Supply Assessment for the Proposed Beach and Edinger Specific Plan Project*, Prepared for City of Huntington Beach (August 2009).

a. WSA Table 4-6 (City of Huntington Beach Supply Allocations with WSAP Stage 2 and 3 Allocations—Normal, Single Dry Year, and Multiple Dry Years [2009/2010–2030]).

b. WSA Table 5-9 (City of Huntington Beach 2008 Demands without Conservation).

One short-term solution to compensate for reductions in imported supply can be achieved by pumping more groundwater above the BPP and within the BEA restriction. Assuming MWDOC's WSAP Stage 2 and 2009 Demand with 64% groundwater pumping allowance of 2% BEA, Table 4.14-14 (Supply and Demand Comparison with MWDOC's WSAP Stage 2 and 2009 Demand with 64% Groundwater including BEA 2% Pumping Allowance [afy]), shows sufficient supplies through 2030. In fact, the City would have surplus supplies in each year. This scenario assumes demand stabilizes at or near its current low point and then would not return to pre-drought conditions. Because this scenario creates a supply in all years, additional groundwater pumping would not be necessary; therefore, the City's surplus would be less than that shown in Table 4.14-14.

Table 4.14-14 Supply and Demand Comparison with MWDOC's WSAP Stage 2 and 2009 Demand with 64 % Groundwater including BEA 2% Pumping Allowance (afy)

	Years				
	2010	*2015*	*2020*	*2025*	*2030*
Supplies[a]	33,739	33,739	33,739	33,739	33,739
Demand[b]	29,606	30,332	31,077	31,839	32,620
Difference	***4,133***	***3,407***	***2,662***	***1,900***	***1,119***

SOURCE: PBS&J, *Water Supply Assessment for the Proposed Beach and Edinger Specific Plan Project*, Prepared for City of Huntington Beach (August 2009).

a. WSA Table 4-7 (City of Huntington Beach Supply Allocations with WSAP Stage 2 and 3 Allocations with 2% BEA Pumping Allowance—Normal, Single Dry Year, and Multiple Dry Years [2009/2010–2030]).

b. WSA Table 5-9 (City of Huntington Beach 2008 Demands without Conservation).

The analysis above (as demonstrated in Table 4.14-13 and Table 4.14-14) assumes that imported water from MWDOC remains close to 90 percent of Base Year through build-out of the proposed project.[91] Due to uncertainties regarding the SWP supply allocations, a reduction in imported deliveries to Metropolitan conveyed to the City via MWDOC could be expected. The actual amount of SWP water delivered to the City could be substantially less than the 90 percent used for these projections. In June 2010, DWR declared that SWP deliveries could be approximately 50 percent of normal allocations (if normal is 90 percent then a 50 percent reduction would be deliveries of 45 percent of normal). As analyzed in the WSA prepared for the BESCP, the long-term water supply under this scenario would be similar to that presented in Table 4.14-13 as this presents a more conservative picture with water supplies deficient after 2030.

This EIR evaluates the proposed project as one of the development projects within the BESCP and project-level mitigation measures can be fully prescribed. As such, the City, through its permitting process can require the proposed project to comply with all current and any new City policies (various new policy suggestions are included in the WSA) 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 Water Management Plan, which currently is set at Stage 1 on a voluntary basis. As required in the City's Water Efficient Landscape Ordinance project-level design guidelines for landscape require installation of efficient irrigation and the use of a native, drought-resistant plant palette. Additionally, actual structural components of the proposed project can be designed equivalent to United States Green Building Council (USGBC) standards, which include standards for water efficiency.

Implementation of BECSP mitigation measure MM4.14-1 and BECSP code requirement CR4.14-1 could reduce water demand generated by each project within the BECSP by up to 40 percent. However, as described above under some of the modeled scenarios of water availability, a supply deficit could exist after 2010, due to reduction of imported water supply under the SWP supply curtailments. In the BECSP WSA, under the worst-case scenario aggressive water conservation of up to 13.4 percent annually would balance supply and demand. The City has demonstrated significant water reductions over the last 10

[91] MWDOC's WSAP Stage 2 is an approximate reduction of 10% of water supplies (as shown in Table 4.7-XX), or 90% of Base Year.

years of approximately 8.6 percent; and according to data in Table 4.14-7 (Historical Demand) it appears that demand has declined significantly. Demand decreases could be contributed to significant conservation efforts, loss of tourism and customer accounts due to the continuing economic conditions and annual population decreases. It should be noted that at some point in the future, 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 at this historical low of 29,463 acre-feet and additional supplies can be obtained through groundwater pumping at 64% (or 2% BEA) to offset the potential shortfall in 2030 (shown in Table 4.14-13) then the potentially significant impact would be reduced to ***less than significant***. No additional mitigation would be necessary; however, the implementation of the City's water efficiency and conservation measures are required including BECSP mitigation measure MM4.14-1 and BECSP code requirement CR4.14-1.

4.14.5 References

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

———. *Urban Water Management Plan*, 2005.

———. Water Source. http://www.huntingtonbeachca.gov/Government/Departments/Public_Works/utilities/supply/ (accessed August 23 2010).

Municipal Water District of Orange County. Meeting of the Board of Directors of the Municipal Water District of Orange County, June 14, 2010.

PBS&J. *Water Supply Assessment for the Proposed Beach and Edinger Specific Plan Project*. Prepared for City of Huntington Beach, August 2009.

Wastewater

This section describes the current status of wastewater services in the City of Huntington Beach, including a discussion of the ability of the City's wastewater services to meet the current needs of the City. Data for this section were taken from *Water Supply Assessment for the Beach-Edinger Corridors Specific Plan* (WSA), the *Beach and Edinger Corridors Specific Plan (BECSP) Sewer Analysis Report*, as well as contacts with utility providers and City staff. Full reference-list entries for all cited materials are provided in Section 4.14.10 (References).

4.14.6 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 and connects to an Orange County Sanitation District (OCSD) regional trunk sewer line that ultimately flows to a reclamation plant operated by OCSD.[92]

[92] City of Huntington Beach, *Sewer Master Plan—Final Report* (May 2003).

Infrastructure

The City's collection system is comprised of approximately 385 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 28 lift stations ranging in capacity from approximately 80 gpm to 1,350 gpm. These facilities lift sewage from low points in the collection system to manholes at higher locations.[93]

Existing sewer lines operated by the City would serve the proposed project. The City's local system generally discharges to larger OCSD facilities to convey wastewater to the local reclamation plant. Given the growth within OCSD's service area, OCSD is currently upsizing a number of collection system pipelines to provide additional capacity.

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. The sewer system consists of 12 trunk sewer systems ranging in size from 12 to 96 inches in diameter and collectively over 500 miles long. Additionally, there are 39 sewer interconnections and 87 diversions to maximize conveyance of flows through the system. Twenty pump stations are used to pump sewage from lower lying areas to the reclamation plants.[94]

No existing capacity issues have been identified in the OCSD system, and OCSD has developed engineering plans for plant improvements anticipated to meet area demands to the year 2050.[95]

Reclamation Plants

OCSD manages wastewater collection and treatment for approximately 480 square miles in central and northwest Orange County, which includes 23 cities, 3 special districts, and 2.6 million residents.[96] OCSD has two operating facilities that treat wastewater from residential, commercial, and industrial sources in central and northwest Orange County. The quantities of wastewater are generally proportional to the population and water use in the service area.

OCSD's Reclamation Plant No. 1 is located in the City of Fountain Valley, about four miles northeast of the ocean and adjacent to the Santa Ana River. The plant provides advanced primary and secondary treatment through an activated sludge system. The secondary effluent is either blended with the advanced primary effluent and routed to the ocean disposal system, or is sent to the Orange County Water District facilities for advanced treatment and recycling. [97] Current primary treatment capacity for Reclamation Plant No. 1 is 204 mgd of wastewater,[98] with an average daily flow of 97 mgd.[99] Remaining capacity at

[93] City of Huntington Beach, *Sewer Master Plan—Final Report* (May 2003).
[94] City of Huntington Beach, *Urban Water Management Plan* (November 21 2005).
[95] PBS&J, *Beach and Edinger Corridors Specific Plan Sewer Analysis Report* (August 2009).
[96] Orange County Sanitation District. Miscellaneous Statistics. September 2, 2010.
[97] City of Huntington Beach, *Urban Water Management Plan* (November 21 2005).
[98] Orange County Sanitation District, *Operations and Maintenance 2008–09 Annual Report* (November 2009).
[99] Orange County Sanitation District. Miscellaneous Statistics. September 2, 2010.

this plant is 107 mgd. The plant is designed to provide secondary treatment to 122 mgd.[100] Reclamation Plant No. 1 is currently being upgraded to add 60 mgd of secondary treatment capacity and has the estimated completion date of fall 2011.[101]

Reclamation Plant No. 2 is located in the City of Huntington Beach adjacent to the Santa Ana River and about 1,500 feet from the ocean. This plant provides a mix of advanced primary and secondary treatment. The plant receives raw wastewater through five major sewers. Approximately 33 percent of the influent receives secondary treatment through an activated sludge system, and all of the effluent is discharged into the ocean disposal system. OCSD's treated wastewater is discharged through a 120-inch outfall at a depth of about 200 feet below sea level and nearly 5 miles offshore from the mouth of the Santa Ana River.[102] Current capacity for Reclamation Plant No. 2 is 168 mgd of primary treated wastewater and 90 mgd of secondary treated wastewater.[103] The current average flow is 110 mgd; thus, remaining capacity at this plant is approximately 58 mgd.[104] This plant is currently being upgraded to add 60 mgd of secondary treatment capacity and has the estimated completion date of spring 2012.[105]

4.14.7 Regulatory Framework

Refer to Section 4.14.5 (Regulatory Framework) of the BECSP Program EIR, for applicable federal, state, and local regulations that would apply to the proposed project. No new regulations have been implemented since the certification of the Program EIR.

The BECSP Development Code, which includes development standards, development regulations, and guidelines, governs all development actions with the BECSP area, including the proposed project site. The proposed project would be subject to development standards specific to the proposed project site's BECSP designations of Town Center Core and Town Center Neighborhood, included as BECSP Section 2.1.3 (Town Center Core) and Section 2.1.4 (Town Center Neighborhood).

General Plan and BECSP Consistency Analysis

Implementation of the proposed project would include the construction of necessary utilities on-site, including wastewater conveyance lines. The sewer lines would need to be sized appropriately for the anticipated flow of approximately 258,000 gpd of wastewater from the proposed project. As discussed in the impact analysis, it is anticipated that the increased flows from the proposed project would not result in required upgrades to the existing OCSD treatment plants. However, implementation of code requirements BECSP CR4.14-3 and BECSP CR4.14-4 would ensure that capacity constraints at the time of development are accurately identified. The construction of wastewater conveyance lines in accordance

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100 City of Huntington Beach, *Urban Water Management Plan* (November 21 2005).
101 Orange County Sanitation District, Fountain Valley Wastewater Reclamation Facility, http://www.ocsd.com/construction/fountain_valley_wastewater_reclamation_facility/default.asp (accessed September 22, 2010).
102 City of Huntington Beach, *Urban Water Management Plan* (November 21 2005).
103 City of Huntington Beach, *Urban Water Management Plan* (November 21 2005).
104 Orange County Sanitation District, Facts and Key Statistics, http://www.ocsd.com/civica/filebank/blobdload.asp?BlobID=1700 (accessed September 22, 2010).
105 Orange County Sanitation District, Huntington Beach Wastewater Reclamation Facility, http://www.ocsd.com/construction/p2/default.asp (accessed September 22, 2010).

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.

4.14.8 Project Impacts and Mitigation

Analytic Method

To determine wastewater impacts associated with future development for the proposed project, estimated future wastewater flows are compared to the capacity of the wastewater treatment plants to determine whether sufficient capacity, as well as infrastructure exists and/or whether there is the need for additional wastewater treatment systems. The estimates of sewer flow are slightly higher than the estimates of water demand. Table 4.14-15 (Estimated Sewer Flows for the Proposed Project) shows the estimated sewer flow calculations for proposed project.

Table 4.14-15 Estimated Sewer Flows for the Proposed Project

Land use	*Quantity*	*Duty Factor*	*Estimated Flow*
Residential	984 du	250 gpd/du	246,000 gpd
Retail	60,000 sf	0.2 gpd/sf	12,000 gpd
Total	—	—	***258,000 gpd (0.26 mgd) (288.9 afy)***

SOURCE: City of Huntington Beach, Section 4.14 (Utilities and Services System), *BECSP PEIR* (2009).

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2010 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:

- 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
- 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

Effects Not Found to Be Significant

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

Impacts and Mitigation Measures

Threshold	Would the proposed project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Impact 4.14-3 **Implementation of development of the proposed project would not exceed wastewater treatment requirements of the Santa Ana Regional Water Quality Control Board. This impact would be *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. Implementation of the proposed project would result in the discharge of wastewater 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 permitted for and 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 all applicable WDRs, as monitored and enforced by the OCSD, would ensure that development under the proposed project would not exceed the allowable 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 proposed project 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?

Impact 4.14-4 **Implementation of the proposed project would require new sewer connections, and could require or result in the construction of new or expanded wastewater conveyance systems. With implementation of BECSP CR4.14-3, BECSP CR4.14-4, and Project CR4.14-5 this impact would be reduced to *less than significant* levels.**

The City of Huntington Beach Public Works Department and OCSD maintain the sanitary sewer system into which the proposed project would discharge. The proposed project includes the development of 984 residential units and 60,000 sf of retail uses. Implementation of the proposed project would increase the amount of wastewater transported by the City's sewer system by approximately 258,000 gpd (0.26 mgd).

As identified in the *BECSP Sewer Analysis Repor*t, discharges associated with development as assumed under the build-out of the proposed Specific Plan is expected to exceed the capacity of several existing sewer systems and require upsizing at several locations (PBS&J 2009). The proposed project lies within the drainage boundaries of one of the said deficient systems, and its development would contribute to the exceedance of one of the City's wastewater collection systems.

Based on this report, the existing local wastewater collection lines are not adequate to meet the requirements of the proposed project, and the project developer(s) would be responsible for constructing local mains and extensions to serve the proposed project. Prior to allowing additional connections to the sewer lines, the capacity of the existing sewers would need to be confirmed and a sewer study would be

needed at the time of development to determine the extent to which the existing sewer lines need to be upgraded to accommodate the proposed project's sewer flow. Implementation of code requirement BECSP CR4.14-3 and BECSP CR4.14-4 would ensure that capacity constraints at the time of development are accurately identified. However, this does not ensure that sufficient capacity would be available and impacts on the capacity of the City's wastewater collection system capacities would be potentially significant.

BECSP CR4.14-3 *Prior to issuance of a Precise Grading or Building Permit, the Applicants shall prepare a sewer analysis and submit it to the Department of Public Works for review and approval. Data from a 14-day or longer flow test shall be included in the analysis. This analysis shall specifically identify constraints and system deficiencies, including requirements for new connections or upgrades to existing stubout connections, associated with development of the proposed project. In addition, OCSD shall confirm that there is capacity in the existing main and trunk sewer lines serving the proposed project.*

Further, this analysis shall identify whether or not the existing system is deficient in proximity to the proposed project. If the proposed project triggers a deficiency in the overall sewer system, the proposed project will be required to upgrade the system per the recommendations of the BECSP, the Department of Public Works requirements, and the project-specific study.

If the sewer study for the proposed project shows no immediate deficiency (i.e., the system has adequate capacity for the proposed project), the applicant may be required to pay a fair share to the party responsible for installation of necessary system upgrades in the future, as it will, at a minimum contribute to the future system-wide deficiency identified in the BECSP EIR.

BECSP CR4.14-4 *For each individual project, the OCSD shall confirm that there is capacity in the existing main and trunk sewer lines serving the individual projects that may be developed in accordance with the proposed Specific Plan.*

BECSP CR4.14-3 and BECSP CR4.14-4 would require that a sewer study is conducted to determine the extent to which the existing sewer lines would require upgrades. In addition, construction of the wastewater collection systems would adhere to existing laws and regulations, including the Construction General NPDES permit, and the infrastructure would be sized appropriately for the proposed project. If off-site infrastructure upsizing is necessary, a permit would need to be obtained from the City and the Applicant would be required to design and construct these improvements per the requirements of the Department of Public Works Standard Plans and Construction General Permit.

In addition, any development connecting directly or indirectly 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 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. 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 for OCSD under CEQA for potential impacts resulting from project development.

Because the proposed project would require or result in the construction of new or expanded wastewater conveyance infrastructure, code requirement Project CR4.14-5 requires the developer to pay full mitigation fees of all impacts of the proposed project on utilities, including wastewater. These fees are

designed to represent the fair share of the new development toward the cost of planned (future) utilities. The following code requirement Project CR4.14-5 shall be implemented, as required by statute, ordinance, or code:

Project CR4.14-5 *The project developer(s) shall pay all applicable impact fees for wastewater and other utilities as established by the City of Huntington Beach.*

Construction of the wastewater collection systems would adhere to existing laws and regulations, and the infrastructure would be sized appropriately for the proposed project. Individual water and wastewater connections would occur as part of the proposed project site. In addition, code requirement BECSP CR4.14-3, BECSP CR4.14-4, and Project CR4.14-5 would ensure that proper sewer connections are provided for at the proposed project site. Therefore, this impact is considered ***less than significant***.

Threshold	Would the proposed 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?

Impact 4.14-5 **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.***

The proposed project would result in wastewater generation of approximately 258,000 gpd of wastewater (0.26 mgd). This would increase the demand upon regional treatment facilities. Remaining capacity at Reclamation plant No. 1 is approximately 107 mgd and the remaining capacity at Reclamation Plant No. 2 is approximately 58 mgd. As such, the reclamation plants would have adequate capacity to treat the 0.26 mgd of wastewater that would be generated from the proposed project. The proposed project would represent less than 1 percent of the remaining capacity at both Reclamation Plants. Additionally, OCSD is already in the construction phase of upgrading facilities to expand treatment capacity at both reclamation plants to add approximately 60 mgd of secondary treatment at each plant. Further, water conservation measures, as required for ensuring adequate water supplies, would also serve to reduce wastewater generation with development of the proposed project.

Consequently, construction or expansion of wastewater treatment facilities is not anticipated to be necessary to serve the proposed project's needs. The OCSD has adequate treatment capacity available over the long term to serve the proposed project. In addition, the proposed project would be required to adhere to existing laws and regulations associated with wastewater discharge and treatment requirements. Therefore, the proposed project's impacts on wastewater treatment facilities are ***less than significant***.

4.14.9 Cumulative Impacts

Threshold	Would the proposed project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

The City as a whole operates under several Waste Facility Discharge permits from RWQCB. 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 from the proposed project would meet these requirements due to treatment capacity available at the OCSD reclamation plants and the implementation of wastewater BMPs (refer to BECSP mitigation measure MM4.7-1 in Section 4.7 [Hydrology/ Water Quality]). The proposed project would develop residential and commercial uses but would not include any industrial uses or science research facilities. For this reason, the proposed project would not discharge pollutants such as industrial sludge, noxious gasses, medical wastes, or radioactive materials. However, the proposed project would generate wastewater that would include typical residential and employee wastes. To ensure that the proposed project would not exceed wastewater treatment requirements, all cumulative development, including the proposed project, would adhere to all local, state, and federal regulations. With adherence to these existing requirements and requirements established by the NPDES permit, the cumulative impact of the proposed project is ***less than significant***.

Threshold	Would the proposed project 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?

Cumulative impacts from future growth within the City regarding sewer line capacity (sewage treatment capacity is addressed above) is mitigated on a project-by-project basis (existing sewer lines adequate for existing development). To the extent that future projected growth within the City would result in the treatment capacity of the wastewater treatment plant being inadequate, each project would be required to mitigate their individual impacts to wastewater treatment facilities, and any potential increase in the demand for wastewater treatment facilities would require the payment of fees to upgrade the impacted wastewater systems. Implementation of BECSP code requirements CR4.14-3 and CR4.14-4 and Project code requirement CR4.14-5 would ensure that capacity constraints at the time of development are accurately identified and sewer connections are provided for at the proposed project site. The proposed project and future proposed in the surrounding area would not make a cumulatively considerable contribution to the overall impact. Future projects would be required to pay fees and develop construction schedules that would reduce the overall impacts to current and future residents in the area. The cumulative impact of the proposed project would be ***less than significant***.

Threshold	Would the proposed 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?

Development of cumulative projects within the OCSD service area would generate additional quantities of wastewater, depending on net increases in population, square footage of development, and intensification of uses. These projects would contribute to the overall regional demand for wastewater treatment service. OCSD Reclamation 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. Implementation of the proposed project would generate approximately 0.26 mgd of wastewater, which represents less than 1 percent of the total current capacity of the plant. In addition, all future development in the City would

be required to implement water conservation measures that would result in a decrease in wastewater generation, ensuring that capacity of the existing treatment plants would not be exceeded with future development. Therefore, since the existing treatment plants can currently accommodate excess capacity, this is considered to be a ***less than significant*** cumulative impact.

4.14.10 References

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

———. Section 4.13 (Utilities and Services System). *The Village of Bella Terra*, 2008.

———. *Sewer Master Plan—Final Report*, May 2003.

———. *Urban Water Management Plan*, 2005.

Orange County Sanitation District. Facilities. http://www.ocsd.com/about/general_information/facilities.asp (accessed September 22, 2010).

———. Facts and Key Statistics. http://www.ocsd.com/civica/filebank/blobdload.asp?BlobID=1700 (accessed September 22, 2010).

———. Fountain Valley Wastewater Reclamation Facility. http://www.ocsd.com/construction/fountain_valley_wastewater_reclamation_facility/default.asp (accessed September 22, 2010).

———. Huntington Beach Wastewater Reclamation Facility. http://www.ocsd.com/construction/p2/default.asp (accessed September 22, 2010).

———. *Operations and Maintenance 2008-09 Annual report*, November.

PBS&J. *Beach and Edinger Corridors Specific Plan Sewer Analysis Report*, August 2009.

———. *Water Supply Assessment for the proposed Beach-Edinger Corridors Specific Plan*, August 2009.

Solid Waste

This section describes the current status of solid waste services in the City of Huntington Beach, including a discussion of the ability of the City's solid waste services to meet the current needs of the City. Solid waste is defined as refuse requiring collection, recycling, or disposal into a landfill.

Data for this section were taken from communication with service providers and online resources. Full reference-list entries for all cited materials are provided in Section 4.14.15 (References).

4.14.11 Environmental Setting

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, which is further discussed below.

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 currently receives approximately 1,800 to 2,000 tons per day. Currently, the Rainbow Disposal's Transfer Station is operating at approximately 71 percent capacity.[106] At the MRFs, trash is mechanically and manually sorted in order to ensure that the maximum amount of waste is recycled 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.[107]

The Orange County Integrated Waste Management Department (IWMD) currently owns and operates three active landfills that serve the Orange County region, 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 20,500 tons per day. Class III landfills accept only non-hazardous municipal solid waste for disposal; no hazardous or liquid waste is accepted. Table 4.14-16 (Landfill Capacity) shows the existing capacities of each of these landfills, as well as their anticipated closure dates and annual usage.

The City is under contract to the County's IWMD to dispose of all waste to the County landfill system (not a particular facility) until the Year 2010. The Orange County landfill system is anticipated to have adequate capacity to operate until 2067.[108] Currently, solid waste from the project site is sent to the Frank R. Bowerman Landfill in Irvine. Permitted capacity for the landfill is limited to 8,500 tons per day. 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) in the county.

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[106] City of Huntington Beach, Section 4.14 (Utilities and Service Systems), *Beach and Edinger Corridors Specific Plan Environmental Impact* (August 2009), p. 4.14-39.
[107] 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 August 20, 2010).
[108] Orange County Waste and Recycling, Orange County Landfill System, http://www.ocgov.com/portal/site/ocgov/menuitem.02b739dec30413a69add603d100000f7/?vgnextoid=b9c856424c63a110VgnVCM1000005b00610aRCRD&vgnextchannel=b6d41414b02f8110VgnVCM1000005b00610aRCRD&vgnextfmt=default (accessed September 21, 2010).

Table 4.14-16 Landfill Capacity

Landfill	Location	Current Remaining Capacity (tons)	Maximum Capacity (Tons)	Estimated Close Date	Maximum Daily Load (tons)
Frank R. Bowerman	11002 Bee Canyon Access Road Irvine, CA 92602	59,411,872	127,000,000	2022	8,500
Olinda Alpha	1942 North Valencia Avenue Brea, CA 92823	38,578,383	74,900,000	2013	8,000
Prima Deshecha	32250 La Pata Avenue San Juan Capistrano, CA 92675	87,384,799	172,900,000	2067	4,000

SOURCE: California Integrated Waste Management Board, 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 August 20, 2010); California Integrated Waste Management Board, Active Landfill Profile for Olinda Alpha Sanitary Landfill, http://www.calrecycle.ca.gov/ profiles/Facility/Landfill/LFProfile1.asp?COID=30&FACID=30-AB-0035 (accessed August 20, 2010); California Integrated Waste Management Board, Active Landfill Profile for Prima Deshecha Sanitary Landfill, http://www.calrecycle.ca.gov/ profiles/Facility/Landfill/LFProfile1.asp?COID=30&FACID=30-AB-0019 (accessed August 20, 2010).

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 is currently scheduled to close in 2013 but upon completion of the Plan's short-term strategy No. 3, the scheduled closure date will be 2021. IWMD remains committed to the implementation of both the Phase 1 (short-term) and Phase 2 (long-term) strategies identified within the Plan.[109]

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

4.14.12 Regulatory Framework

Refer to Section 4.14.8 (Regulatory Framework) of the BECSP Program EIR, for applicable federal, state, and local regulations that would apply to the proposed project. No new regulations have been implemented since the certification of the Program EIR.

[109] 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%20 2007.pdf (accessed September 21, 2010).

The BECSP Development Code, which includes development standards, development regulations, and guidelines, governs all development actions with the BECSP area, including the proposed project site. The proposed project would be subject to development standards specific to the proposed project site's BECSP designations of Town Center Core and Town Center Neighborhood, included as BECSP Section 2.1.3 (Town Center Core) and Section 2.1.4 (Town Center Neighborhood).

General Plan and BECSP Consistency Analysis

The proposed project site would be served by Rainbow Disposal, which has been contracted by the City to maintain solid waste disposal needs. 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.

4.14.13 Project Impacts and Mitigation

Analytic Method

The proposed project would result in the development of 984 residential units and approximately 60,000 sf of retail space (Table 4.14-17 [Waste Generated from Existing Land Uses and Proposed Project], below). To determine the amount of solid waste generated by the proposed project, solid waste generation factors identified by the CIWMB in its *Estimated Solid Waste Generation Rates*[110] and the generation factors are applied to the square footage for the neighborhood retail component and each residential unit of the proposed project. 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 to determine whether adequate capacity exists.

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2010 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:

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

Effects Not Found to Be Significant

Threshold	Would the proposed project comply with federal, state, and local statutes and regulations related to solid waste?

The City is required by state law to recycle at least 50 percent of all trash generated. Huntington Beach recycled over 71 percent of its residential waste stream in 2006, which represents the most recent data

[110] California Integrated Waste Management Board, Estimated Solid Waste Generation Rates, http://www.ciwmb.ca.gov/wastechar/wastegenrates/ (accessed August 20, 2010).

available that has been approved by the CIWMB.[111] Both residential and commercial refuse is sorted for recyclables. Additionally, construction and demolition projects generate a high volume of recyclable material that is recycled to the greatest extent feasible. The proposed project would be in compliance with federal, state, and local statures and regulation regulated to solid waste and would result in ***no impact***.

Impacts and Mitigation Measures

Threshold	Would the proposed project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Impact 4.14-6 **Implementation of the proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs. The proposed project would result in a *less than significant* impact.**

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 4.14-17 (Waste Generated from the Proposed Project). To determine solid waste impacts associated with the proposed project, estimated future solid waste generation amounts are compared to the total anticipated remaining capacity at landfills that serve the City. As shown in Table 4.14-17 the proposed project is estimated to produce approximately 4,296 pounds per day (lbs/day), or approximately 1,568,040 lbs/year, of solid waste. This translates to a generation rate of approximately 2.15 tons of solid waste per day and 784 tons of solid waste per year.

Table 4.14-17 Waste Generated from the Proposed Project

Land Use	*Solid Waste Generation Rates (lbs/unit/day)*	*Proposed Project*	
		Units	*Waste Generated (lbs/day)*
Residential (medium-high density)	4 lbs/dwelling unit/day	984 units	3,936 lbs/day
Retail	0.006 lbs/sf/day	60,000 sf	360 lbs/day
	Total		***4,296 lbs/day (2.15 tons/day)*** ***1,568,040 lbs/yr (784 tons/yr)***

SOURCE: California Integrated Waste Management Board, Estimated Solid Waste Generation Rates, http://www.ciwmb.ca.gov/wastechar/wastegenrates/ (accessed August 20, 2010).

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 under the proposed project would be less than 0.1 percent at approximately 0.0009 percent of its entire design capacity. Utilization of the transfer station would remain at 71 percent under the implementation of the proposed project. Rainbow Disposal is able to accept all commercial waste in addition to all construction waste

[111] 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 August 20, 2010).

generated by the proposed project. In addition, the two MRFs sort and separate all waste and recycle all appropriate materials further reducing the waste generation going to the landfills.

As shown in Table 4.14-17, there are three landfills that could serve the project site, which have a design capacity of 4,000, 8,000, and 8,500 tons per day, respectively. Based on landfill capacity, the solid waste contribution of 2.15 tons per day to any of the three landfills that serve the project site is less than 1 percent of their allowed daily capacity.

With Rainbow Disposal able 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.

4.14.14 Cumulative Impacts

Threshold	Would the proposed project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

IWMD has the ability to take up to 20,000 tons of solid waste a day into its three landfills. With the implementation of the AB 939 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 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 the County. Future development under the proposed project would generate 2.15 tons of solid waste per day. Solid waste generation from the proposed project represents less than 1 percent of the allowed daily capacity of any one of the three landfills serving the project site. 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***.

4.14.15 References

California Integrated Waste Management Board. 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 August 20, 2010).

———. Active Landfill Profile for Olinda Alpha Sanitary Landfill. http://www.calrecycle.ca.gov/profiles/Facility/Landfill/LFProfile1.asp?COID=30&FACID=30-AB-0035 (accessed August 20, 2010).

———. Active Landfill Profile for Prima Deshecha Sanitary Landfill. http://www.calrecycle.ca.gov/profiles/Facility/Landfill/LFProfile1.asp?COID=30&FACID=30-AB-0019 (accessed August 20, 2010).

———. Estimated Solid Waste Generation Rates. http://www.ciwmb.ca.gov/wastechar/wastegenrates/ (accessed August 20, 2010).

———. Jurisdiction Profile for Huntington Beach (Diversion Rate). http://www.calrecycle.ca.gov/Profiles/Juris/JurProfile1.asp?RG=C&JURID=205&JUR=Huntington+Beach (accessed August 20, 2010).

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

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 September 21, 2010)

Orange County Waste and Recycling. Orange County Landfill System. http://www.ocgov.com/portal/site/ocgov/menuitem.02b739dec30413a69add603d100000f7/?vgnextoid=b9c856424c63a110VgnVCM1000005b00610aRCRD&vgnextchannel=b6d41414b02f8110VgnVCM1000005b00610aRCRD&vgnextfmt=default (accessed September 21, 2010).

RELOOC Team. *Regional Landfill Options for Orange County (RELOOC) Specific Plan*, December 2001.

Energy

This section describes the current status of energy (electricity and natural gas) services in the City of Huntington Beach, including a discussion of the ability of the City's energy services to meet the current needs of the City.

Data for this section were obtained from communication with service providers and online resources. Full reference-list entries for all cited materials are provided in Section 4.14.20 (References).

4.14.16 Environmental Setting

Energy resources consist of electricity and natural gas. Electricity is provided to the City by Southern California Edison (SCE), while the Southern California Gas Company (SCGC) provides natural gas services. Existing gas lines and power lines, both are anticipated to be sufficient to serve the proposed development.

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; and 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 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.[112] 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 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.[113]

Natural Gas

Natural gas is a "fossil fuel," indicating that it comes from the ground, similar to other hydrocarbons such as coal or oil. SCGC purchases natural gas from several bordering states. Most of the major natural gas transmission pipelines within the 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.

4.14.17 Regulatory Framework

Refer to Section 4.14.11 (Regulatory Framework) of the BECSP Program EIR, for applicable federal, state, and local regulations that would apply to the proposed project. No new regulations have been implemented since the certification of the Program EIR.

The BECSP Development Code, which includes development standards, development regulations, and guidelines, governs all development actions with the BECSP area, including the proposed project site. The proposed project would be subject to development standards specific to the proposed project site's BECSP designations of Town Center Core and Town Center Neighborhood, included as BECSP Section 2.1.3 (Town Center Core) and Section 2.1.4 (Town Center Neighborhood).

General Plan and BECSP Consistency Analysis

As discussed below, an adequate supply of electricity and natural gas is anticipated to be available to serve the proposed project. Further, the proposed project would comply with the provisions of Title 24 of the CCR. As such, either option of the proposed project would be designed to conserve energy. Therefore, the proposed project would not conflict with the applicable goals, and policies of the City's General Plan Utilities Element.

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[112] California Energy Commission, *2009 Integrated Energy Policy Report* (December 2009).
[113] Southern California Edison, Transmission Projects, http://www.sce.com/PowerandEnvironment/Transmission/ (accessed August 12, 2010).

4.14.18 Project Impacts and Mitigation

Analytic Method

To determine whether 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 or per-unit consumption rate. Table 4.14-17 (Projected Electricity Demand) and Table 4.14-18 (Projected Natural Gas Demand), below, provide electricity and natural gas demand associated with the proposed project. Because demand rates are based on type and amount of land use, this analysis focuses upon residential (medium-high density) and neighborhood retail components included in the proposed project.

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2010 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 energy production or transmission facilities, or expansion of existing facilities, the construction of which could cause a significant environmental impact

Effects Not Found to Be Significant

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

Impacts and Mitigation Measures

Threshold	Would the proposed project require or result in the construction of new energy production or transmission facilities, or expansion of existing facilities, the construction of which could cause a significant environmental impact?

Impact 4.14-7 **Implementation of the proposed project would not require or result in the construction of new energy production or transmission facilities, or expansion of existing facilities, the construction of which could cause a significant environmental impact. This would be a *less than significant* impact.**

Electricity

The proposed project would result in the development of approximately 984 residential units and 60,000 sf of retail. As such, implementation of the proposed project would increase the use of electricity at the project site, to light, heat, and air condition the new building, and parking areas. Based on Table 4.14-18 (Projected Electricity Demand), the total annual electricity consumption by the proposed project is estimated to be approximately 6,349,476 kWh/year.

Table 4.14-18 Projected Electricity Demand

Type of use	*Energy Consumption Rates*	*Proposed Development*	*Electricity (kWh/year)*
Residential (medium-high density)	5,626.50 kWh/units/year	984 units	5,536,476 kWh/year
Retail	13.55 kWh/sf/year	60,000 sf	813,000 kWh/year
Total	—	—	***6,349,476 kWh/year***

SOURCE: South Coast Air Quality Management District, Natural Gas and Electricity Consumption Rates, *CEQA Air Quality Handbook* (1993).

As discussed above, the state is currently experiencing constraints related to energy delivery. These constraints are generally limited to peak demand days during the summer months, such that for the majority of the days during the year adequate energy supplies are reliably provided to consumers. Implementation of the proposed project would increase use of electricity in the project area, in particular, the demand for electricity to light, heat, and air condition for residential and commercial uses. On peak days, the incremental demand from the proposed project would contribute to electricity supply and delivery constraints. The proposed project would be required to comply with the energy conservation measures contained in Title 24, which would reduce the amount of energy needed for the operation of any buildings constructed as a part of the proposed project.

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 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.[114]

An adequate supply of electricity is anticipated to be available to serve the proposed project.[115] Further, the proposed project would comply with the provisions of Title 24 of the CCR. As such, future development of the proposed project would be designed to conserve energy. Also, because SCE is currently in the process of upgrading its transmission systems, it is anticipated that the electricity demand generated by future development could be supplied without the need for additional construction or expansion of energy facilities beyond that which was previously planned.

Natural Gas

As shown in Table 4.14-19 (Projected Natural Gas Demand), the demand for natural gas from the proposed project would be approximately 49,455,792 ft^3/year. Future development of the proposed project would be served by existing gas lines located in various locations within the vicinity of the project site.

[114] Southern California Edison (SCE), Transmission Projects, http://www.sce.com/PowerandEnvironment/Transmission/ (accessed August 12, 2010).
[115] City of Huntington Beach, Section 4.14 (Utilities and Service Systems), *Beach and Edinger Corridors Specific Plan Environmental Impact* (August 2009), p. 4.14-48.

Table 4.14-19 Projected Natural Gas Demand			
Type of use	***Energy Consumption Rates***	***Proposed Development***	***Natural Gas (ft^3/year)***
Residential (medium-high density)	48,138 ft^3/unit/year	984 units	47,367,792 ft^3/year
Retail	34.8 ft^3/sf/year	60,000 sf	2,088,000 ft^3/year
Total	—	—	***49,455,792 ft3/year***

SOURCE: South Coast Air Quality Management District, Natural Gas and Electricity Consumption Rates, *CEQA Air Quality Handbook* (1993).

Because the SCGC declares itself a "reactive" utility that will provide natural gas as customers request its services, the SCGC has indicated that an adequate supply of natural gas is currently available to serve the proposed project and that the level of service provided to the surrounding area would not be impaired by future development. New natural gas lines to serve future development at the project site would be located underground and would be constructed in accordance with the 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 future development would not exceed available or planned supply, and new infrastructure would not be required to serve the project site, the proposed project would not require or result in the construction of new energy production or transmission facilities, or expansion of existing facilities, the construction of which could cause a significant environmental impact. Therefore, this impact would be ***less than significant***.

4.14.19 Cumulative Impacts

Threshold	Would the proposed project require or result in the construction of new energy production or transmission facilities, or expansion of existing facilities, the construction of which could cause a significant environmental impact?

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 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.[116] 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.

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. Since the SCGC declares itself a "reactive" utility that will provide natural gas as customers request its services, the SCGC has indicated that an adequate supply of natural gas is currently available to serve the proposed project and that the level of service provided to the surrounding area would not be impaired by future development. The SCGC has stated

[116] Southern California Edison, Transmission Projects, http://www.sce.com/PowerandEnvironment/Transmission/ (accessed August 12, 2010).

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 would not be cumulatively considerable. This is considered to be a ***less than significant*** impact.

4.14.20 References

California Energy Commission. *2009 Integrated Energy Policy Report*, December 2009.

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

South Coast Air Quality Management District. Natural Gas and Electricity Consumption Rates. *CEQA Air Quality Handbook*, 1993.

Southern California Edison. Transmission Projects. http://www.sce.com/PowerandEnvironment/Transmission/ (accessed August 12, 2010).

———. Cities and Communities within the SCE Service Territory. http://www.sce.com/NR/rdonlyres/466AED1E-CB69-4CE0-85A7-FC5783E07D01/0/2008_SCETerritory.pdf (accessed August 4, 2010).