4.14 UTILITIES AND SERVICE SYSTEMS

This section describes existing utilities and service systems in the vicinity of the project site, and the potential impacts of the proposed project on these utilities and service systems. Utilities and service systems discussed in this section include of the following:

- Water supply
- Wastewater
- Solid waste
- Electricity
- Natural gas
- Communication systems

4.14.1 EXISTING SETTING RELATED TO UTILITIES AND SERVICE SYSTEMS

4.14.1.1 Water

The City of Santa Ana Water Department provides water service to the project vicinity. The City maintains a 16-inch water main located in Main Street, a 16-inch line in Memory Lane and a 10-inch line in Lawson Way.

The City of Santa Ana derives water from two sources: groundwater and imported water. The City supplies 16.3[1] billion gallons of water yearly. Currently, about 66 percent of the City's water supply is derived from local water sources, groundwater, and is pumped to the surface from 20 City-operated wells. The other 34 percent is purchased from the Metropolitan Water District of Southern California (Metropolitan). There are a total of seven Metropolitan connections located in the City.[2] During the months of May through September, approximately three of the seven MWD connections are opened and a blend of 70 percent groundwater and 30 percent imported water is delivered to the City.[3]

4.14.1.2 Wastewater

The Orange County Sanitation District (OCSD) is responsible for collecting, treating and disposing of the wastewater generated by 2.5 million people living in a 470 square-mile area of central and northwest Orange County in the OCSD service area. OCSD has two operating facilities that treat wastewater from residential, commercial and industrial sources. OCSD's service area is divided into nine revenue areas; the project site is in OCSD Revenue Area 2 which includes 10 north Orange County cities including the City of Santa Ana.[4]

Wastewater generated in the project area is transported and treated at Reclamation Plant No. 1 in the City of Fountain Valley. This plant has a design capacity of 180 million gallons per day (mgd). If Plant No. 1 is operating at capacity, sewage is diverted to Reclamation Plant No. 2 in Huntington Beach.

The City of Santa Ana maintains local sewer lines. Existing development in the project area is served by sewers connected to OCSD's 30-inch trunk line in Memory Lane, the Memory Lane Inceptor. The Memory Lane Interceptor was built to accommodate flows from the existing development in the project

[1] City of Santa Ana, *2004 City of Santa Ana Water Quality Report.*
[2] City of Santa Ana, *2005 Urban Water Management Plan.*
[3] City of Santa Ana, *2004 City of Santa Ana Water Quality Report.*
[4] OCSD website at www.ocsd.com, June 2007.

area as well as anticipated flows from the previously approved Main Street Concourse Project consisting of up to 1.96 million square feet of office, retail and hotel uses, and 280 residential units.

4.14.1.3 Solid Waste

Regulatory Setting

The California Integrated Waste Management Act (AB 939) established a hierarchy for integrated waste management to guide local agencies in implementation of the following in order of priority:

1. Source reduction.
2. Recycling and composting.
3. Environmentally safe transformation land disposal.

This Act established the California Integrated Waste Management Board (CIWMB) and authorized the CIWMB to monitor and enforce the mandates of AB 939. AB 939 further established the Integrated Waste Management Plan (IWMP), which requires counties to establish a task force to coordinate the development of local jurisdiction Source Reduction and Recycling Elements (SRREs) and a countywide siting element. Each adopted SRRE contains programs and policies for fulfillment of the goals of AB 939. Required components of an SRRE include waste characterization, source reduction recycling, composting, solid waste facility capacity, education and public information, funding, special waste, and household hazardous waste.

Landfills

Solid waste for Orange County is hauled to one of three landfills in Orange County: Prima Deshecha, Olinda Alpha, or Frank R. Bowerman, depending on the landfill identified in the agreement with the hauler. The County's Integrated Waste Management Department (IWMD) operates the County's landfills. The County's IWMD is also in the process of studying future landfill options including expansions of the existing landfills. IWMD could opt to discontinue the importation of solid waste from outside Orange County which would result in later closure dates for the three active landfills.

Prima Deshecha, Olinda Alpha, and Frank R. Bowerman Landfills are permitted as Class III which only accepts non-hazardous municipal solid waste for disposal. The location, permitted capacity and closure date of each land fill is provided on Table 4.14-1.

The City contracts for solid waste collection services. Waste Management of Orange County (WMOC) provides collection of residential and commercial refuse, recyclables (newspaper, glass, aluminum and plastic containers) and yard waste in the City. Waste collected in Santa Ana is transferred one of the three landfills listed above.

4.14.1.4 Electricity

Southern California Edison (SCE) provides electrical service to the project vicinity including the project site. There are existing electrical power lines in the project vicinity located on Main Street and Memory Lane.

TABLE 4.14-1
ACTIVE LANDFILLS

LANDFILL	LOCATION	PERMITTED CAPACITY TONS PER DAY (TPD)	CLOSURE DATE
Prima Deshecha	32250 La Pata Avenue San Juan Capistrano	4,000	2067
Olinda Alpha	1942 North Valencia Avenue Brea	8,000	2013
Frank R. Bowerman	11002 Bee Canyon Access Road Irvine	8,500	2022

Source: County of Orange Integrated Waste Management Department, June, 2007.

Natural Gas

Southern California Gas Company (SCGC) provides natural gas service to the project vicinity. Existing distribution mains in the project vicinity include a three-inch gas pipeline in Main Street, a four-inch gas pipeline in Memory Lane and a two-inch gas pipeline in Lawson Way.

Communication Systems

AT&T Communications provides telephone, television, and high-speed internet services to the City of Santa Ana including the project site. In addition, Time Warner also provides digital cable and high-speed internet services to the City of Santa Ana including the project site. Currently there are no existing facilities serving the project site.

4.14.2 THRESHOLDS OF SIGNIFICANCE RELATED TO UTILITIES AND SERVICE SYSTEMS

Based on Appendix G of the CEQA Guidelines, implementation of the City Place Sky Lofts project would result in a significant adverse impact on the environment related to utilities and services systems if the project would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- Require or result in the construction of new water or wastewater treatment facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects.
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Have insufficient water supplies available to serve the project from existing entitlements and resources, and new or expanded entitlements would be required.
- Result in a determination by the wastewater treatment provider (which services or may serve the project) that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.
- Not comply with federal, state, and local statues and regulations related to solid waste.

4.14.3 METHODOLOGY RELATED TO UTILITIES AND SERVICE SYSTEMS

4.14.3.1 Utility Providers

Each utility provider was contacted to determine if the proposed project would result in a significant adverse impact on the ability to provide services to the project site and surrounding area.

4.14.3.2 Wastewater

Wastewater treatment facility impacts were evaluated by analyzing the amount of wastewater currently generated at the project site and quantifying the increase of wastewater generated by the proposed project. Impacts related to sewer line capacity were evaluated in the *Sanitary Sewer Impact Study*, prepared by Metcalf & Eddy, and are provided in Appendix I of this DEIR. The analysis was conducted by creating a hydraulic model of the OCSD trunk sewer system using sewer network information from the OCSD's geodatabase and flow monitoring information from the OCSD Long-Term Flow Monitoring Project. The hydraulic model was used to simulate flow scenarios for 2005, 2010, 2020, 2030 and buildout under dry and wet weather conditions. The wet weather scenarios were based on a storm event that is estimated to occur once every ten years (MWH 2006). The model was also used to identify new sewer projects to eliminate significant wet weather capacity deficiencies and potential overflows.

4.14.3.3 Solid Waste

Solid waste impacts were evaluated by analyzing the amount of solid waste currently generated at the project site and quantifying the increase of solid waste generated by the proposed project.

4.14.4 IMPACTS RELATED TO UTILITIES AND SERVICE SYSTEMS

4.14.4.1 Water

The project would be served from the existing lines in Lawson Way and Memory Lane. According to the City of Santa Ana Public Works Department, Water Resources Division, these 10-inch and 16-inch lines, respectively, along with City Wells #27 and #28, are adequate to serve the proposed development.[5]

As shown in Table 4.14-2, development of the proposed project would increase demand on the City's water supply by approximately 113,300 gallons per day.

As stated above, the City relies on a majority of its water supply from groundwater. Project development, however, would not deplete groundwater supplies or interfere with groundwater recharge. Existing entitlements, both from the City's groundwater and from Metropolitan, are considered adequate to meet anticipated future demand in the City of Santa Ana[6]. On-site improvements and connections to the City's water system facilities would be provided by the applicant. In addition, State-mandated water conservation measures, including ultra low-flow toilets, urinals, and taps, water-conserving plumbing, and other required conservation measures, would be utilized to reduce the amount of water used. As a result, expansion of existing or construction of new water facilities, or new entitlements to serve the proposed development would not be necessary[7]. Therefore, impacts related to water resources would be less than significant.

[5] Written correspondence from Phillip Vakili, City of Santa Ana Public Works Department, Water Resources Division. May 1, 2007.
[6] *Ibid.*
[7] *Ibid.*

TABLE 4.14-2
ESTIMATED WATER CONSUMPTION

LAND USE	ESTIMATED PROJECT DEVELOPMENT	CONSUMPTION RATE[1]	WATER CONSUMPTION (GPD)[2]
Residential			
1 Bedroom Unit	202 units	110/gallons/day/person	44,440
2 Bedroom Unit	146 units	110/gallons/day/person	64,240
3 Bedroom Unit	7 units	110/gallons/day/person	4,620
Total Estimated Water Generation (gpd)			**113,300**

Source: P&D Consultants, 2007.
1 City Place EIR, P&D Consultants, 2005.
2 Assumes 2 person per 1BR, 4 persons per 2 BR, 6 persons per 3 BR.
gpd = gallons per day

4.14.4.2 Wastewater

The new occupants on the project site would generate additional wastewater that would be conveyed to and treated at the OCSD's Reclamation Plant No. 1.

However, development of the project site would not result in wastewater generation which would exceed the design capacity of the OCSD's Reclamation Plant No. 1 of 180 mgd. If Plant No. 1 is operating at capacity, sewage is diverted to Reclamation Plant No. 2 in Huntington Beach. Therefore, the proposed project would not result in a need to construct a new wastewater treatment plant or local treatment facilities, and impacts would be less than significant.

Wastewater originating from the project site would discharge to a local sewer line on the City Place site and then be conveyed to OCSD's 30-inch Memory Lane Interceptor. As shown in Table 4.14-3, the expected average wastewater flow from the project site is 113,300 gallons per day. The *Sanitary Sewer Impact Study* concluded that the Memory Lane Interceptor has enough capacity to handle flows from the proposed project under all present and future dry and wet weather scenarios. In addition, no flooding or surcharging that is not already present in the Memory Lane Interceptor would be caused by development of the proposed project. Therefore, no major upgrades or changes to the Memory Lane Interceptor other than those already specified in its Strategic Plan Update are necessary to accommodate the proposed project. Therefore, impacts related to sewer line capacity would be less than significant.

TABLE 4.14-3
ESTIMATED WASTEWATER GENERATION

LAND USE	ESTIMATED PROJECT DEVELOPMENT	CONSUMPTION RATE[1]	WASTEWATER GENERATION (GPD)[2]
Residential			
1 Bedroom Unit	202 units	110/gallons/day/person	44,440
2 Bedroom Unit	146 units	110/gallons/day/person	64,240
3 Bedroom Unit	7 units	110/gallons/day/person	4,620
Total Estimated Water Generation (gpd)			**113,300**

Source: Metcalf and Eddy, 2007.
1 City Place EIR, P&D Consultants, 2005.
2 Assumes 2 person per 1BR, 4 persons per 2 BR, 6 persons per 3 BR.
gpd = gallons per day

The developer would provide all required on-site sewer infrastructure and pay appropriate sewer system connection fees.

4.14.4.3 Solid Waste

The introduction of more residential uses would result in an increase in the generation of solid waste on the site. The future solid waste generation estimates for the proposed project are provided in Table 4.14-4.

TABLE 4.14-4
ESTIMATED SOLID WASTE GENERATION

LAND USE	ESTIMATED PROJECT DEVELOPMENT	GENERATION RATE[1] (POUNDS PER DAY)	WASTE GENERATED (POUNDS PER DAY)
Residential	353 units	7 lbs/unit/day	2,471.00
Total Estimated Solid Waste Generation (pounds/day)			**2,471.00**

Source: P&D Consultants, 2007.
1 City Place EIR, P&D Consultants, 2005.

As shown, approximately 2,471 pounds per day (1.24 tons per day) of solid waste would be generated by the proposed project. Solid waste collected by WMOC is currently transported to one of the three County landfill facilities. As shown earlier in Table 4.14-1, Prima Deshecha, Olinda Alpha, and Frank R. Bowerman Landfills currently accept a combined total of 20,500 tons of solid waste per day.

Because the project's waste generation represents a small percentage of the total solid waste deposited daily at the three Orange County landfills, and because the City would continue to implement existing waste reduction programs and would require new development in the City to comply with those programs, the impact of the proposed project related to solid waste would be less than significant.

The proposed project includes two trash chutes located immediately east of the elevator core, one of which will be used for recyclables. WMOC will be responsible for collecting recyclables from this chute.

4.14.4.4 Electricity

Implementation of the proposed project would result in increased demand for electrical service. As shown in Table 4.14-5, the proposed project would generate demand for approximately 2.16 million kilowatts an hour (kWh) of electricity per year. This amount of electricity would be consistent with the amounts typically consumed by residential uses in urban areas and would represent an incremental increase in the amount of electricity consumed in the region. SCE has indicated that the project's electrical needs can be met without substantial expansion of existing facilities. Therefore, the impact of the proposed project related to electrical service would be less than significant.

TABLE 4.14-5
ESTIMATED ELECTRICITY CONSUMPTION

LAND USE	ESTIMATED PROJECT DEVELOPMENT	CONSUMPTION RATE[1]	ELECTRICITY GENERATED (MILLION KWH/YR)
Residential	353 units	6,081 kWh/du/yr	2.16
Total Estimated Electricity Generation (million kWh/yr)			**2.16**

Source: P&D Consultants, 2007.
1 City Place EIR, P&D Consultants, 2005.
kWh = kilowatt an hour; du = dwelling unit

4.14.4.5 Natural Gas

Implementation of the proposed project would result in increase in the demand for natural gas service. As shown in Table 4.14-6, the proposed project would generate demand for approximately 1.457 million cubic feet (cf) of natural gas per month. This amount of natural gas would be consistent with the amounts typically consumed by residential uses in urban areas and would represent an incremental increase in the amount of natural gas consumed in the region. SCGC indicated that the project's natural gas needs can be met without substantial expansion of existing facilities. Therefore, impacts related to natural gas service would be less than significant.

TABLE 4.14-6
ESTIMATED NATURAL GAS CONSUMPTION

LAND USE	ESTIMATED PROJECT DEVELOPMENT	CONSUMPTION RATE	NATURAL GAS GENERATED (MILLION CF/MO)
Residential	353 units	4,105 cf/du/mo	1.46
Total Estimated Natural Gas Generation (million cf/mo)			**1.46**

Source: P&D Consultants, 2007.
1 City Place EIR, P&D Consultants, 2005.
cf =cubic feet; du = dwelling unit

4.14.4.6 Communication Systems

Implementation of the proposed project would require connections to the new development on the project site for telephone, cable television, and high speed internet service. All necessary on-site communication systems improvements or connections would be properly and adequately designed and constructed. AT&T offers DISH Network television, AT&T Yahoo! DSL high-speed internet, and AT&T unlimited local and long distance telephone to the project site[8]. In addition, Time Warner offers digital cable and Road Runner high-speed internet to the project site[9]. The proposed project would not require substantial upgrades to facilities in order for adequate service to be provided. Therefore, impacts related to the expansion of these utility provider's facilities would be less than significant. However, a mitigation measure is provided to ensure coordination with AT&T and/or Time Warner prior to construction.

[8] On-line utility and home-service marketplace www.whitefence.com.
[9] *Ibid.*

4.14.5 MITIGATION RELATED TO UTILITIES AND SERVICE SYSTEMS

Although there are no significant adverse impacts to public utilities and service systems on the site, the following mitigation measures are included to ensure that coordination with public utility providers are maintained.

U-1 The Applicant shall coordinate with the utility companies serving the site to establish service connections prior to construction.

U-2 Any pre-existing underground utilities at the site shall be located prior to construction and abandoned or removed in accordance with state and local codes and regulations. Any utility trenches shall be backfilled under the observation and testing of the resident engineer or inspector.

U-3 The Applicant shall pay its fair share of necessary telephone improvements including a main conduit structure to bring lines into the project site. Coordination with AT&T and/or Time Warner during the development stage would facilitate service connection.

4.14.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION RELATED TO UTILITIES AND SERVICE SYSTEMS

Implementation of the proposed project would result in impacts to utility and service systems that are less than significant. However, mitigation measures have been provided to ensure coordination with utility providers.