
5.17 Utilities

The following section provides an analysis of utilities and service systems for the proposed Project. Existing condition information presented in this section is based on coordination with affected utility service agencies. Specific references are identified within the subsection for each respective issue. This section addresses the following utility service systems (the service provider is noted in parenthesis):

- Water Supply and Distribution Systems (City of San Juan Capistrano Utilities Department – for operations and maintenance, and the City of San Juan Capistrano Public Works Department for capital facilities)
- Wastewater Treatment and Collection (City of San Juan Capistrano Utilities Department– for operations and maintenance, and the City of San Juan Capistrano Public Works Department for capital facilities)
- Solid Waste (Orange County Waste and Recycling)

In addition to the utilities and service systems addressed above, this DEIR also includes analysis of storm drain facilities in Section 5.9, Hydrology and Water Quality.

5.17.1 WATER SERVICE

Environmental Setting

The City of San Juan Capistrano Utilities Department (UD) currently provides water and wastewater operations and maintenance services within the City. Presently the City receives approximately 50 percent of its water from Metropolitan Water District (MWD), which consists of water from the Colorado River and the State Water Project and 50 percent from local groundwater processed through the Groundwater Recovery Plant (GRP). Domestic water is provided within the City’s system within six distinct zones defined by reservoirs, and 27 sub-zones served through pressure regulating stations and hydro-pneumatic systems.

Imported water is supplied to the City through connections from the Joint Regional Water Supply System’s (formerly the Tri-Cities Municipal Water District) Eastern Transmission Main, and the South County Pipeline. Supply through the Eastern Transmission Main is conveyed to the City at the Master Meter (CM-10), which provides the majority of the imported water supply to the City at a hydraulic grade elevation (HGE) varying from 450 to 475 feet above mean sea level (amsl). The City is allowed to take up to 15 cubic feet per second (cfs) at the Master Meter connection. Imported water from the South County Pipeline is conveyed through the SC-04 Turnout connection. The City’s current capacity through the SC-04 connection is 4.9 cfs at the HE of 800 feet amsl. The City has an option to obtain additional capacity, up to a total of 10.0 cfs in the future.

The City of San Juan Capistrano adopted a Domestic Water Master Plan and Non-Domestic/Recycled Water Master Plan to address water resources in the City. The GRP extracts

water that is high in minerals and treats the water to make it suitable for potable water uses. The GRP facilities consist of six wells located along the San Juan Creek as well as a treatment facility located in the City's municipal complex. The reverse osmosis treatment facility sequesters and removes the iron and manganese in addition to high concentrations of total dissolved solids; chlorine and ammoniac and added to the finished water, which supplements the potable water supply.

Historic Town Center Project Area – Existing Water Facilities

The Project area is currently developed and served by a network of water mains within the existing roadway right-of-ways. The Project is within the 250S Zone, the largest zone in the City's system covering 1,460 acres. The primary source of water supply to this zone is through two existing pressure reducing stations (PRS) from the 350C Zone, which is balanced by the Cooks Reservoir. Cooks Reservoir has a capacity of 1.0 million gallons. The City has also relied on the JRWSS interconnect at Del Obispo during emergency conditions to maintain adequate pressures at the south end of this Zone. The 2004 and ultimate average day demands are 2.71 cfs (1,215.4 gpm) and 3.03 cfs (1,359.7 gpm), respectively.

The water distribution system in the Project area includes, 8" asbestos cement pipe (ACP) pipelines are located in Ortega Highway, Del Obispo Street, Camino Capistrano and El Camino Real; 8" DIP is located along Ramos Street and Paseo Adelanto, 6" ACP pipeline is located in Spring Street; 6" CIP is located in Yorba Street, Forster Street, and Los Rios Street. Estimated water demand within the Revitalization and Repositioning areas are provided in Table 5.17-1 below.

The piping system of the 250C Zone will be inadequate to sustain any facilities with fire flow demands in excess 1,500 gallons per minute. An extension of the 350C system is currently under design to provide fire flow for the Plaza Banderas Hotel (located north and east of the intersection of Camino Real and Ortega Hwy) which is expected to require between 2,500 and 3,000 gallons per minute of fire flow. The lines to feed this system will be the two described as the Ortega Section and the El Horno Section on the sketch PBHotel-FF-lines.pdf, or the two parallel lines (W-1, & W-4) in the proposed I-5 bridge as shown on sheet U-1 of Components_Map.pdf. This system can be extended to meet large fire flow demands if needed; or integrated into additional feed points to the 250C system to enhance its capacity.

Table 5.17-1 Existing Water Usage for the HTC Project			
Land Use	Water Consumption Rate (gpd/1,000 sf)	Existing sf	Total (gpd)
Retail	102.4	559,089 sf	57,251
Commercial/Office	53.7	103,434 sf	5,554
Civic	53.7	49,872 sf	2,678
Religious	53.7	107,490 sf	5,772
Education	53.7	77,617 sf	4,168
Parking/Other	0	19,385 sf	0
Residential (Low Density)	94.7	278,784	26,401
Hotel	102.4	0 sf	0
Total			96,624
<i>SOURCE: Water Consumption Rates provided by the City of San Juan Capistrano. Note that the existing gpd/ac consumption factors are based on one-story developments.</i>			

Non-Domestic/Recycled Water

The City currently provides non-domestic water to 15 existing users with an estimated demand of 611 Acre Feet per Year (AFY) (379 gpm). The non-domestic water is a blend of lower quality groundwater from the Mission Street Well and the Hollywood Well No.2A and supplemental potable water. The existing system consists of two separate service areas served by three wells, one reservoir (Reed Reservoir), and approximately 54,100 feet of pipelines ranging in size from 4-inches to 12-inches in diameter. The City has rights to use a maximum of 3,325 AFY (2.97 mgd) of groundwater in San Juan Basin. Of this amount, 1,825 AFY (1.63 mgd) is historically claimed for non-domestic use.

There are 113 existing irrigation water users that are currently served by the domestic water system. When the non-domestic water sources of supply are increased, and the system is extended to their vicinity, these users can be connected to the non-domestic system. The existing average demand for these users is estimated at 1,430 AFY (887 gpm). The average non-domestic water demand for the future developments within the City is estimated to be 1,227 AFY (791 gpm). The total planned non-domestic water use is 3,268 AFY.

The City adopted a Non-Domestic/Recycled Water Master Plan Update in March of 2008 in order to evaluate future sources of non-domestic supply. Potential future sources include additional wells (Ramos Street, , , and Via Cordova) and the proposed advanced water treatment plant (AWTP) at the Jay B. Latham Treatment Plant. The secondary treatment capacity of the Jay B. Latham Facility is 13 mgd and existing flows average about 9 mgd. As a member agency of SERRA and SOCWA, the City owns 4.0 mgd of secondary treatment capacity in the Jay B. Latham Facility. Wastewater contributed from the City’s service area is currently about 3.6 mgd.

The City of San Juan Capistrano will need to purchase, or otherwise obtain from other agencies recycled water in lieu of any additional production at the Jay B. Latham Plant.

There are no non-domestic water facilities or infrastructure within the Project site. An existing pipeline is located north of the Connectivity area that draws water from the Mission Street Well. The City also has one non-potable well, also located along Trabuco Creek near its confluence with Oso Creek. The non-potable water from this well is suitable for irrigation purposes and is distributed via the City's non-domestic delivery system.

Thresholds of Significance

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project will normally have a significant adverse environmental impact on potable water if it would:

Threshold PW-1 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.

Threshold PW-2 Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

Environmental Impacts

Existing Plans, Programs, and Policies

The following measure reflects existing plans, programs, or policies that apply to the proposed Project and help to address potential impacts related to water services and facilities:

PPP-PW-1 Prior to issuance of a grading permit for future site specific development, the project applicant shall prepare a water supply plan for the project in accordance with City standards and submit the plan to the City's Public Works Department for review and approval. The water supply plan shall extend the 350C system pipelines, or connect to existing facilities in the 250S water pressure zone and meet all other requirements prescribed by the City related to main size, pressure, etc.

PPP-PW-2 All new development and redevelopment shall comply with City of San Juan Capistrano Ordinance 966 "Water Efficient Landscape Ordinance Guidelines," AB 1881 and SB 7 by incorporating water conservation features.

PPP-PW-3 The proposed Project shall comply with Title 24 and shall incorporate all applicable water conservation measures (e.g., low-flow toilets and urinals,

etc.) into the proposed project to reduce the project's demand for domestic water to the maximum extent practicable.

Project Design Features

There are no specific Project Design Features that relate to potential impacts on potable water services and facilities.

Impact Analysis

As defined by the thresholds for determining significance, impacts on potable water services and facilities are described below:

Threshold PW-1 Would the 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?

Threshold PW-2 Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Project development will result in both short-term and long-term increases in water demand. Short-term demand for water may occur during demolition, excavation, grading, and construction activities on site. Water demand for soil watering (fugitive dust control), cleanup, masonry, painting, and other activities would be temporary and would cease at project build-out. Overall, construction activities require minimal water as compared to water consumption associated with long term operations of the proposed Project analyzed herein and are not expected to have any adverse impacts on the existing water system or available water supplies. Therefore, sufficient water supplies are available for short-term construction activities and impacts are considered less than significant.

New development on-site will result in an increase in long-term water demand. Although all new development is required to comply with State law regarding water conservation measures, including pertinent provisions of Title 20 and Title 24 of the California Government Code regarding the use of water-efficient appliances, the proposed Project would result in an increase in water demand. Based on the domestic water demand factors provided by the City, the estimated net new daily water demand for future uses within the Project area would be approximately 72,894 gpd or 51 gallons per minute (gpm) as illustrated in Table 5.17-2 below.

Table 5.17-2			
Potable Water Demand HTC Project			
Land Use	Water Consumption Rate (gpd/1,000 sf)	Proposed sf	Total (gpd)
Retail	102.4	-26,269 sf	-2,690
Commercial/Office	53.7	113,665 sf	6,104
Civic	53.7	20,661 sf	1,110
Religious	53.7	0 sf	0
Education	53.7	0 sf	0
Parking/Other	0	-4,478 sf	0
Residential (High Density)	168.7	327,777 sf	55,296
Hotel	102.4	127,671 sf	13,074
Total			72,894
<i>SOURCE: Water Consumption Rates provided by the City of San Juan Capistrano. Note that the existing gpd/ac consumption factors are based on one-story developments.</i>			

Domestic water demands are estimated based on the assumption that the non-domestic system is implemented to the fullest extent practical to irrigate parks, recreational areas, and common landscape areas. Domestic potable water would be used to serve interior and exterior uses, including fire flows, to developed lots and structures. Based on Tables 5.17-1 and 5.17-2 above, Project implementation would result in an additional water usage of 72,894 gpd as compared to existing conditions. Given the City’s current importation allocation from MWD and the amount of water produced by the City’s GRF, the City has sufficient domestic water supply to meet the anticipated demand of the HTC Master Plan Project area.¹

A majority of HTC Master Plan Project area does not currently comply with the most recent fire flow standards established by the OCFA and the 2010 California Fire Code (CFC), but has been grandfathered. New development and redevelopment of the HTC Project site will require upgrades to the existing water distribution system to meet the new fire flow standards. As prescribed in PPP-FS-1 and PPP-FS-2, future site specific projects will be required to prepare water improvement plans and meet OCFA fire flow and suppression standards, as well as, and the California Fire Code (Title 24, Park 9).

The construction of water service infrastructure has the potential for impacts such as construction-related dust and noise, air emissions and traffic, etc. The potential impacts associated with the construction of needed water system improvements are accounted for in other sections of this Draft EIR (Sections 5.1 through 5.17). Any applicable mitigation measures identified in those sections will address potential significant impacts associated with construction of public utilities (in particular see Sections 5.3 Air Quality, 5.12 Noise, and 5.16 Transportation/Traffic). Therefore, through consistent implementation of a variety of mitigation measures related to construction impacts as presented in Table 1.5 in Section 1, Executive Summary, no additional impacts related to construction and operation of the water distribution system would occur.

¹ Correspondence with Bill Ramsey, AICP, Principal Planner, City of San Juan Capistrano, Development Services Department. Email dated April 8, 2011.

Non-domestic/Recycled Water

In addition to the project-related domestic water demand identified above, the proposed Project will also create a demand for recycled water for landscape irrigation purposes. Recycled water services and facilities do not currently exist in the Project area. Ultimate buildout of the City's non-domestic water system includes an 8" pipeline (Pipeline 21) along Camino Capistrano to Ortega Highway to El Camino Real within the Revitalization area. Pipeline 19 is a 16" pipeline proposed along Paseo Adelanto to Del Obispo then along Camino Capistrano where it continues and crosses San Juan Creek and the I-5 Freeway to the south. As a result, until such time as recycled water is available, domestic water will also be used with contingent plans to transfer the irrigation demand as recycled water becomes available. In order to minimize the demand for domestic water in the future, future site specific projects will be designed to accommodate the future availability of recycled water (refer to MM-PW-1).

Cumulative Impacts

The long range water master plan includes the provision of adequate facilities to accommodate "buildout" of the General Plan land uses. Adequate capacities are available in the utility service systems to accommodate both the proposed Project as well as other related projects that have been approved and are identified for future development. Because the Project is consistent with the programs adopted by the City, demands for domestic water have been anticipated by the City. The City continues to implement programs and water system capital improvements that reduce the City's demand for imported water including construction of the GRF, installation of groundwater wells in the San Juan Basin, and potential participation with South Coast Water District (SCWD) in the development of a seawater desalination plant. Therefore, no significant cumulative impacts are anticipated.

Level of Significance Before Mitigation

The construction of public service infrastructure, poses the potential for significant impacts such as construction-related dust, traffic, and noise. The potential for such impacts is addressed in other sections of this EIR and applicable mitigation measures have been identified, as appropriate.

Mitigation Measures

Measures contained in the mitigation monitoring program and which are identified in other sections of this EIR (Sections 5.1 - 5.17) address the environmental impacts associated with the construction and operation of public utilities improvements required to serve the proposed Project. These measures are applicable to the construction and operation of new wastewater facilities identified in this section to serve new growth expected in the Project area.

MM-PW-1 Prior to the approval of the final map for future site specific development, the project applicant shall submit a public improvement plan that includes provisions for extending recycled water service to the project site to meet all landscape irrigation needs. The design and construction of on-site

recycled water service shall meet all applicable State Recycled water rules and regulations, California Plumbing Code 2009 and the City of San Juan Capistrano requirements/standards. The applicant shall connect to the public recycled water service system as such time as it is available at the project boundaries.

Level of Significance After Mitigation

With implementation of mitigation measures related to construction of development infrastructure, as addressed in other sections of this EIR, potential impacts would be reduced to a level that is less than significant.

5.17.2 WASTEWATER TREATMENT AND COLLECTION

Environmental Setting

Wastewater (sewer) collection and treatment within the City of San Juan Capistrano is provided by the City’s Department of Public Works. The City operates and maintains a sanitary sewer collection and conveyance system that includes approximately 120 miles of sewers, which range in sizes up to 27 inches in diameter, and two lift stations, the Avenida De La Vista Lift Station and Rosenbaum Lift Station. Wastewater collected in the City’s system is conveyed to the South Orange County Wastewater Authority’s (SOCWA) Jay B. Latham Regional Treatment Plant. The City is one of four member agencies that own capacity in this treatment plant, which is operated by SOCWA. SOCWA also operates the San Juan Creek Ocean Outfall, which discharged treated wastewater from the plant in to the Pacific Ocean for disposal. The City of San Juan Capistrano is one of 5 member agencies that own capacity at the San Juan Creek Ocean Outfall.

Table 5.17-3 summarizes the member agencies and their respective capacity allocations in the Jay B. Latham Regional Treatment Plant. This Plant is a conventional activated sludge wastewater treatment plan with secondary treatment design liquid treatment and solids handling capacities of 13.0 million gallons per day (mgd) and 18.5 mgd, respectively. The City owns 4.0 mgd of the liquids treatment capacity and 5.55 mgd of the solids handling capacity.

Table 5.17-3 Treatment Plant Capacity Allocations				
Member Agency	Liquids Treatment Capacity (mgd)	Percent	Solids Handling Capacity (mgd)	Percent
San Juan Capistrano	4.00	30.77	5.55	30.00
Santa Margarita WD	2.25	17.31	5.25	23.38
Moulton Niguel WD	3.00	23.08	4.00	21.62
South Coast WD	3.75	28.84	3.70	20.00
Total	13.0	100	18.5	100

SOURCE: Final Report – Sanitary Sewer System Master Plan (2004)

The City's sanitary sewer system dates back to the 1920s. The Sanitary Sewer System Master Plan and Rehabilitation Program Report, adopted in November 2004, provided a rehabilitation program for the City's sewer system that dates back to the 1920s. The program was combined with the City's existing rehabilitation program and in conjunction with the City's on-going sewer cleaning and videotaping, helps to fulfill State and federal requirement to properly operate and maintain the collection system and ensure that hydraulic capacities are adequate to accommodate sewage generated within the system and to prevent system overflows. The Rosenbaum Lift Station, originally constructed in 1973, was completely upgraded in 2000 and has two submersible vortex pumps each rated at 455 gallons per minute (gpm) at 45 feet of total dynamic head (TDH). The Avenida De La Vista Lift Station was constructed in 1984 as a temporary lift station and has two submersible vortex pumps each rated at 650 gpm at 33 feet of TDH.

Historic Town Center Project

The HTC Master Plan Project site is an urbanized area that has a number of existing sewer facilities. Existing sewer facilities throughout the Project site include a 9" pipeline that travels along El Camino Real to Forster then to Camino Capistrano south. There is an 8" to 9" pipeline that exists along the Santa Fe railroad line. An 8" line exists along Del Obispo Street near Ortega Highway to connect with the Camino Capistrano pipeline and within Paseo Adelanto. There are also a number of 8" lines throughout the site to serve the existing businesses. Sewer lines in the Project area were constructed in the 1960s and 1970s.

Table 5.17-4 summarizes the existing wastewater being generated within the Revitalization and Repositioning areas of the Project site. As shown, approximately 132,032 gpd of wastewater is being generated by the existing uses.

Table 5.17-4 Existing Wastewater Generation for the Project Area			
Land Use	Wastewater Generation Factor (gpd/adj ac)	Existing Acreage*	Total gpd
Revitalization/Repositioning Areas			
Retail	1,800	65.8	118,440
Office	800	16.6	13,280
Parks	120	2.6	312
Parking/Other	0	1.0	0
Total			132,032
<i>SOURCE: Table 4-1. Average-Day Wastewater Generation Factors for Existing System, Final Report – Sanitary Sewer System Master Plan (2004).</i>			

Thresholds of Significance

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project will normally have a significant adverse environmental impact on wastewater treatment and collection if it would:

Threshold SWR-1 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.

Threshold SWR-2 Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Threshold SWR-3 Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Environmental Impacts

Existing Plans, Programs, and Policies

PPP-SWR-1 Prior to issuance of a grading permit for future site specific development, the project applicant shall prepare a sewer plan and identify the sizing and location of backbone facilities necessary to service the proposed project, in accordance with City standards and submit the plan to the City's Utilities Department for review and approval. Design of the facilities that serve the project shall be sufficient to meet the projected service demands of the proposed project.

Project Design Features

There are no specific Project Design Features that relate to potential impacts on wastewater treatment and collection.

Impact Analysis

As defined by the thresholds for determining significance, impacts related to wastewater treatment and collection are described below:

Threshold SWR-1 Would the 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?

Threshold SWR-2 Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Based on the City's wastewater generation factors and the nature and amounts of uses proposed in the Revitalization and Repositioning areas of the HTC Master Plan Project site, it is estimated

that approximately 183,386 gallons of wastewater would be generated per day under average dry-weather flow conditions as illustrated in Table 5.17-5 below.

Table 5.17-5 Estimated Wastewater Generation for the Project Area			
Land Use	Wastewater Generation Factor (gpd/adj ac)	Proposed Acreage*	Total gpd
Revitalization/Repositioning Area			
Residential	3,300	19.2	63,360
Retail	1,800	52.4	94,320
Commercial/Office	800	3.2	2,560
Civic	800	0.5	400
Hotel	105 gal/day/room*	4.7 (214 rooms)	22,470
Parks	120	2.3	276
Parking/Other	0	3.1	0
Total			183,386
<i>SOURCE: Table 4-1. Average-Day Wastewater Generation Factors for Existing System, Final Report – Sanitary Sewer System Master Plan (2004).</i>			
<i>* Table 4-2 in Section 9-4.523 of the San Juan Capistrano Municipal Code.</i>			

Project implementation will result in the generation of additional wastewater, specifically, 51,354 gpd over existing conditions or a 39 percent increase. The City has indicated that it has previously acquired adequate wastewater treatment and disposal capacity to serve the proposed project. In addition, implementation of the water conservation program, reducing domestic water demand by 20 percent by 2020, will result in a proportionate reduction in the amount of wastewater generated by the proposed Project. As a result, no significant impacts related to wastewater transport and treatment are anticipated.

Future new development and redevelopment in the Project area would tie into the existing sewer system and may require upgrades to existing facilities to convey sewage from the Project area to the Jay B. Latham Regional Treatment Plant. As previously noted, the wastewater collection system consists of sanitary sewer facilities ranging in size from 8" to 15." As site specific development and redevelopment projects are proposed, the project applicant will be required to prepare and submit a sewer study that reflects the design standards prescribed by the City for laterals and main line sewers. In addition, all new laterals extended to or upgrades within the existing sewer main from the Project site would be designed in accordance with the Uniform Plumbing Code. As a result, Project implementation will not result in significant impacts; no additional mitigation measures are required.

The construction of sewer infrastructure upgrades poses the potential for impacts such as construction-related dust, noise, and traffic, etc. In addition, upgrades to the existing lines may result in the handling of asbestos containing materials. The potential for such impacts is addressed in other sections of this EIR (Sections 5.1 – 5.17). Any applicable mitigation measures identified in those sections will address potential significant impacts associated with construction of public utilities (in particular see Sections 5.3 Air Quality, 5.8 Hazards and Hazardous Materials, 5.12 Noise, and 5.16 Traffic). Therefore, through consistent

implementation of a variety of mitigation measures related to construction impacts as presented in Table 1.5 in Section 1, Executive Summary, no additional impacts related to construction and operation of the sewer system would occur.

Threshold SWR-3 Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

As described above, the future site specific development in accordance with the HTC Master Plan would tie into the existing wastewater collection system that would convey flows to the existing Camino Capistrano, Del Obispo Street and El Camino Real sewer mains and ultimately to the Jay B. Latham Regional Treatment Plant. PP-SWR-1 will ensure that adequate capacity exists or will be provided in the trunk sewers. In addition, the on going monitoring of treatment capacity needs will further reduce impacts related to wastewater treatment requirements. Therefore, the proposed Project would not result in the exceedance of SOCWA's capacity to treat wastewater from the HTC Master Plan area. The City is regulated by law to treat wastewater consistent with the requirements and standards of the Regional Water Quality Control Board and the proposed Project will not result in the exceedance of SOCWA's treatment capacity. Therefore, no significant impact related to exceeding wastewater treatment standards is anticipated for the proposed Project.

Cumulative Impacts

The long range water master plan includes the provision of adequate facilities to accommodate "buildout" of the General Plan land uses. Adequate capacities are available in the utility service systems to accommodate both the proposed Project as well as other related projects that have been approved and are identified for future development. Because the Project is consistent with the programs adopted by the City, wastewater generation has been anticipated by the City. The City continues to implement programs and wastewater system capital improvements that reduce the City's wastewater generation. Therefore, no significant cumulative impacts are anticipated.

Level of Significance Before Mitigation

The construction of public service infrastructure, poses the potential for significant impacts such as construction-related dust, traffic, and noise. The potential for such impacts is addressed in other sections of this EIR and applicable mitigation measures have been identified, as appropriate.

Mitigation Measures

Measures contained in the mitigation monitoring program and which are identified in other sections of this EIR (Sections 5.1 - 5.17) address the environmental impacts associated with the construction and operation of public utilities improvements required to serve the proposed Project. These measures are applicable to the construction and operation of new wastewater facilities identified in this section to serve new growth expected in the Project area.

Level of Significance After Mitigation

With implementation of mitigation measures related to construction of development infrastructure, as addressed in other sections of this EIR, potential impacts would be reduced to a level that is less than significance.

5.17.3 SOLID WASTE

Environmental Setting

The Project area is located within the Orange County Waste & Recycling (OCWR), formerly called Integrated Waste Management Department, service area. The OCWR administers the Countywide Integrated Waste Management Plan (CIWMP). The OCWR owns and operates three active landfills and four household hazardous waste collection centers, and monitors 12 closed landfills. All three existing landfills are permitted by the California Integrated Waste Management Board (CIWMB) as Class III landfills. Class III landfills accept all types of nonhazardous municipal solid waste for disposal; however, no hazardous or liquid waste can be accepted.

The City of San Juan Capistrano contracts with CR&R, a private solid waste hauler, to collect and dispose of the solid waste/refuse generated in the City. Solid waste/refuse collected in the City by CR&R is transported to Prima Deshecha Landfill located approximately 3 miles northeast of the HTC Project site off of Ortega Highway at 32250 La Pata Avenue in San Juan Capistrano. This landfill accepts municipal solid waste from municipalities in both southern Orange County and from cities in northern San Diego County. The capacity of the Prima Deshecha Landfill is limited by the "solid waste facilities permit (SWFP)" issued by the CIWMB to maximum of 4,000 tons/day. The remaining available landfill capacity is 133.8 million cubic yards and based on current daily disposal rates, the estimated date of closure will be 2067.² The landfill currently accepts a daily average of approximately 1,500 tons per day. To the extent that future development increases daily landfill tonnage and solid diversion/recycling becomes more effective thereby reducing daily tonnage, that anticipated closure date could move up or back.

Orange County also operates the Frank R. Bowerman Landfill in Irvine and the Olinda Alpha Landfill in Brea. Other solid waste facilities located in the County of Orange include six Transfer/Materials Recovery Facilities, four Household Hazardous Waste Collection Centers operated by the County, and composting facilities.

The City also administers a curbside recycling program for glass bottles and jars, household paper products, aluminum and other metal cans, and greenwaste through CR&R. The City of San Juan Capistrano has established a Construction and Demolition Waste Recycling Program per Ordinance No. 887 and Resolutions No. 03-11-04-04 and 03-11-04-05 to help in diverting construction and demolition waste from landfills and also to comply with mandates of the California Integrated Wasted Management Board (CIWMB). Construction, demolition and remodeling projects subject to the ordinance must commit to diverting a minimum of 50 percent

² *Arnau, John. Orange County Waste and Recycling Email dated April 11, 2011.*

of all concrete and asphalt construction and demolition debris and 15 percent of all other construction and demolition debris, unless the City grants an exemption. The ordinance also requires project applicants to post a Waste Diversion Deposit that is refundable provided that the project applicant can provide evidence that the waste diversion/salvage requirements have been met.

The CIWMB requires that all counties have an approved Countywide Integrated Waste Management Plan (CIWMP) that demonstrates sufficient solid waste disposal capacity for a minimum of 15 years. The County's CIWMP was approved in March 1996³ and shows that sufficient solid waste disposal capacity is available in the County for the next 30 years based on population projections for the area. The next review date is March 2016. Under AB 939, each city and county is also required to reduce by 50 percent the amount of wastes going to landfills, based on 1990 levels. Waste haulers are working with various jurisdictions on recycling programs and other measures to comply with this mandate. In compliance with AB 939, the City of San Juan Capistrano had a diversion rate of 64 percent in 2006.⁴

A pilot food waste recycling program began in April to test recycling food wastes from businesses in San Juan Capistrano and eight other Orange County cities. Through a one-year \$400,000 grant from the OCWR, food waste will be collected from five local businesses and taken to a composting facility for recycling. Food businesses participating include El Adobe; Sarducci's; El Campeon; Vintage Steakhouse; and Farm to Market. The pilot program is designed to set equipment and procedural infrastructure in place for possible expansion to more businesses next year, when landfill disposal fees for regular trash in Orange County will increase by 32 percent.

The beneficial program is essential: On average, a restaurant disposes of more than 50 tons of organic waste every year. Californians overall throw away more than 5 million tons of food scraps each year. Every City in California is required to divert at least 50 percent of all of its waste away from landfills, due to space constraints. By participating in the food waste recycling program, local businesses hope to reduce their trash disposal costs, while helping the City maintain compliance with its recycling goals. The pilot program is expected to recycle up to 20 tons of food waste every week.

Solid waste currently being generated on the Project site consists of wastes associated with an urbanized downtown and residential wastes. Estimates of current waste generation are provided in the following section.

Thresholds of Significance

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project will not normally have a significant adverse environmental impact on solid waste services and facilities if it would:

³ <http://www.calrecycle.ca.gov/lgcentral/Library/Policy/5YrReview/RevisDueDate.htm>

⁴ CIWMB. *Jurisdiction Diversion Program and Diversion Rate Summary website:* <http://www.calrecycle.ca.gov/LGCentral/Tools/MARS/DRMCMMain.asp>.

Threshold SWM-1 Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

Threshold SWM-2 Comply with federal, state, and local statutes and regulations related to solid waste.

Environmental Impacts

Existing Plans, Programs, and Policies

The following measures are existing plans, programs, or policies that apply to the Proposed Project and will help to address potential impacts related to solid waste collection and disposal demands:

PPP-SWM-1 Future site specific development shall comply with the provisions of the Tri-Cities (San Juan Capistrano, Dana Point and San Clemente) Source Reduction and Recycling Element (SRRE) adopted by the City of San Juan Capistrano to reduce solid waste by 50 percent.

PPP-SWM-2 Future site specific development shall comply with the City of San Juan Capistrano Construction and Demolition (C&D) Waste Recycling Program per Ordinance No. 887.

Project Design Features

There are no specific Project Design Features that relate to potential impacts on solid waste services and facilities.

Impact Analysis

As defined by the thresholds for determining significance, impacts related to solid waste services and facilities are described below:

Threshold SWM-1 Would the Project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Development of the proposed Project will increase the service demand on solid waste disposal beyond existing conditions and further increase the amount of waste disposed of at the Prima Deshecha Landfill. The development is expected to generate the typical range of recyclable and non-recyclable waste that other similar residential and non-residential uses create, including greenwaste (i.e., lawn and tree trimmings), cardboard, paper, glass, plastic, aluminum cans, diapers, food, and household hazardous waste (i.e. paint, motor oil, antifreeze, and batteries), etc.

The HTC Master Plan is proposing a mix of residential, retail, office, civic, hotel and other mixed uses. Table 5.17-6 provides a summary of the anticipated solid waste that would be generated by the proposed Project. As indicated below, the Project would generate an estimated

4,069 pounds or 2.03 tons of solid waste per day (i.e. 741 tons per year). Daily disposals represent approximately 0.13 percent (1 thousandth) of the current total daily landfill capacity, which is well within its 4,000 ton permitted daily capacity.

Table 5.17-6 Estimated Solid Waste Generation for the Project			
Land Use	Solid Waste Generation Rate	Proposed Project: Net Change from Existing	Total (Lbs/day)
Multi-Family Residential	<i>12.23 lbs./household/day</i>	239 DU	2,923
Retail	<i>3.12 lbs/100 s.f./day</i>	-26,269 s.f.	-851
Office	<i>1 lbs/100 s.f./day</i>	113,665 s.f.	1,136
Civic	<i>.007 lbs./s.f./day</i>	20,661 s.f.	145
Hotel	<i>4 lbs/room/day</i>	214 rooms	856
Other	<i>3.12 lbs/100 s.f./day</i>	-4,478 s.f.	-140
Total			4,069
<i>SOURCE: Orange County Waste & Recycling (Letter dated April 11, 2011).</i>			

As required by the CIWMB, Orange County has an approved CIWMP that demonstrates sufficient solid waste disposal capacity for a minimum of 15 years as based on Orange County population projections. OCWR has reviewed the Project parameters and has indicated that Project implementation will not result in significant impacts to solid waste since the Project is not anticipated to exceed the current capacity.⁵ OCWR indicated that the Prima Deshecha Landfill has adequate capacity to accommodate the Project on a project-specific and cumulative basis. Based on the above discussion, no significant impact on the Prima Deshecha Landfill and other landfills within Orange County is anticipated as a result of this Project.

Private solid waste hauling services will expand to meet the needs of the projected growth and development allowed under the proposed Project. The residential and commercial uses within the Project area will be served by CR&R for the collection of solid wastes and recyclables. The City's contractual agreement with CR&R obligates CR&R to guarantee that the City will meet or exceed the diversion requirements set forth in AB 939. Therefore, the Project will comply with the established diversion requirements.

In addition, as part of AB939 compliance, state law (SB1374) requires that all cities implement ordinances or other measures that specifically require the diversion of 75 percent of all construction and demolition waste from landfills. Construction and demolition waste typically includes, but is not limited to, asphalt, brick, concrete, drywall, flooring, glass, gravel, metal, sand, soil, wood, and organics (greenwaste) and other landscaping debris. Therefore, to assure compliance with these statutes, it is necessary for the City to require appropriate and effective mitigation measures to limit the disposal and ensure significant recycling of solid waste from

⁵ Arnau, John. Orange County Waste and Recycling Email dated April 11, 2011.

construction activities. As such, the Project is required to comply with PPP-SWM-1. Additionally, the Project will be required to comply with the City's adopted requirements related to diversion of construction and demolition waste (Ordinance 887).

Threshold SWM-2 Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Solid waste practices in California are governed by multiple federal, state and local agencies, which enforce legislation, and regulations that ensure landfill operations minimize impacts to public health and safety, and the environment. An important part of OCWR's mission is to apply sound environmental practices to ensure compliance with these regulations. Additionally, as previously discussed, OCWR has an adopted CWIMP that requires countywide facilities to meet the 15-year capacity requirement. OCWR also is obligated to obtain a Solid Waste Facilities Permit, a Stormwater Discharge Permit, and permits to construct and operate gas management systems and meet Waste Discharge Requirements. The local enforcement agency (LEA), SCAQMD and RWQCB enforce landfill regulations related to health, air quality, and water quality, respectively. The proposed Project would not inhibit OCWR's compliance with the requirements of each of these governing bodies.

It should also be noted that the City of San Juan Capistrano complies with all Federal, State and local statutes and regulations related to solid waste. AB 939 requires that after 2000, the City of San Juan Capistrano divert at least 50 percent of solid waste from landfills through conservation, recycling, and composting.

Cumulative Impacts

The proposed Project, in combination with other projects within the county would create an increased demand on landfills and solid waste services for the County of Orange. However, the Orange County Landfill system is required to have available and will provide sufficient disposal capacity for a projected period of 15 years. The CIWMP has demonstrated this capacity will be provided. Therefore, the Project-related impacts would not be cumulatively significant.

Level of Significance Before Mitigation

No significant impact related to solid waste is expected to result from the proposed Project.

Mitigation Measures

In the absence of significant impacts, no mitigation measures are necessary.

Level of Significance After Mitigation

Implementation of the proposed Project will not result in a significant impact related to solid waste.

5.17.4 ENERGY AND COMMUNICATIONS

Environmental Setting

Electrical Services

San Diego Gas & Electric (SDG&E) provides electrical service to the Project site. There are several SDG&E transmission and distribution lines in the within and in close vicinity to the Project area to serve the existing businesses. Existing electrical lines in the Project area vicinity include but are not limited to 12kV lines along Camino Capistrano, Del Obispo Street and Ortega Highway.

Natural Gas Facilities and Service

The Southern California Gas Company (SCG) provides natural gas in the vicinity of the Project. There are distribution facilities that currently deliver natural gas service to existing uses in the Project area (i.e., Traveland) and vicinity along Camino Capistrano, Del Obispo Street and Ortega Highway.

Communication Facilities and Services

AT&T Communications provides telephone service to existing uses in the Project site and vicinity and Cox Communications provides services within the Project site and vicinity for cable television, Internet services, and standard telephone service. Both AT&T and Cox Communications have existing facilities in the immediate vicinity including along Camino Capistrano, Del Obispo Street and Ortega Highway.

Thresholds of Significance

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a Project will normally have a significant adverse environmental impact on energy and communication services and facilities if it would:

Threshold EC-1 Result in substantial adverse physical impacts associated with the provision of new or physically altered energy and communications transmission facilities, need for new or physically altered energy and communications transmission facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable levels of service.

Environmental Impacts

Existing Plans, Programs, and Policies

The following measures are existing plans, programs, or policies that apply to the proposed Project and will help to address potential impacts related to energy and communication services and facilities:

PPP-EC-1 The proposed project shall comply with all State Energy Insulation Standards and City of San Juan Capistrano codes in effect at the time of application for building permits. (Commonly referred to as Title 24, these standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Title 24 covers the use of energy efficient building standards, including ventilation, insulation and construction and the use of energy saving appliances, conditioning systems, water heating, and lighting.) Plans submitted for building permits shall include written notes demonstrating compliance with energy standards.

Project Design Features

There are no specific Project Design Features that relate to potential impacts on energy and communication services and facilities.

Impacts Analysis

As defined by the thresholds for determining significance, impacts related to energy and communication services and facilities are described below:

Threshold EC-1 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered energy and communication transmission facilities, need for new or physically altered energy and communications transmission facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable levels of service?

The primary demand for electricity, gas, and communications within the Project area will be generated by the development of proposed land uses. Implementation of the proposed Project will require the expansion of electrical, gas, and communications services. All existing gas, electrical, and communication distribution systems are adequate to service the HTC Project area.

Electrical Services

SDG&E would service the proposed Project in accordance with all applicable tariff schedules which are the effective rates and rules of SCE on file with and approved by the Public Utilities Commission, State of California and subject to the receipt of such permits or other authorizations

from public agencies as may be required for such installation. Further, as discussed in Section 5.17, Global Climate Change, the Project would incorporate energy conservation measures to reduce the overall demand for electricity.

The proposed Project would tie into the existing electrical transmission and distribution systems from the existing sources to serve the Project. This service would be provided in accordance with the rules and regulations of SCE on file with and approved by the California Public Utilities Commission (CPUC) and the State of California. It is not anticipated that new electricity lines would be necessary, since the Project would tie into the existing distribution system. However, if redevelopment occurs in a area where new lines are required to tie into the existing grid, potential impacts associated with the construction of electric lines are accounted for in other sections of this EIR (Sections 5.1 through 5.17). Any applicable mitigation measures identified in those sections will address potential significant impacts associated with construction of public utilities (in particular see Sections 5.3 Air Quality, 5.12 Noise, and 5.16 Traffic). Therefore, through consistent implementation of a variety of mitigation measures related to construction impacts as presented in Table 1.5 in Section 1, Executive Summary, no additional impacts related to construction and operation of the distribution system would occur.

Natural Gas

SCG provided an NOP comment letter from the Draft EIR addressing natural gas service. The comment letter states that SCG has existing facilities in portions of the Project area and gas service can be provided from an existing gas main in various locations. In area where facilities are not already existing, natural gas service can be extended from existing gas mains and the service will be in accordance with SCG's policies and extension rules on file with the California Public Utilities Commission when the contractual arrangements are met. Further, as discussed in Section 5.7, Greenhouse Gas Emissions, the proposed Project would incorporate energy conservation measures to reduce the overall demand for natural gas.

It is not anticipated that new gas pipelines would be necessary, since the Project would tie into the existing distribution system. However, if new gas lines are required to tie into the existing grid, potential impacts associated with the construction of gas lines are accounted for in other sections of this EIR (Sections 5.1 through 5.17). Any applicable mitigation measures identified in those sections will address potential significant impacts associated with construction of public utilities (in particular see Sections 5.3 Air Quality, 5.12 Noise, and 5.16 Traffic). Therefore, through consistent implementation of a variety of mitigation measures related to construction impacts as presented in Table 1.5 in Section 1, Executive Summary, no additional impacts related to construction and operation of the distribution system would occur.

The availability of natural gas service is based upon present conditions of gas supply and regulatory policies. According to current and projected fuel supplies, SCG would have adequate supply to serve the proposed Project at build out. Available supplies of natural gas are expected to remain plentiful, while overall demand in the region is expected to decline by six percent between 1999 and 2020. SCG is under the jurisdiction of the California Public Utilities Commission and can also be affected by actions of Federal regulatory agencies. Should these

agencies take any action which affects gas supply or the condition under which service is available, gas service would be provided in accordance with the revised conditions.

Communication Facilities

AT&T and Cox would provide communication service to proposed development in accordance with and at rates and charges specified in its scheduled tariffs on file with the California Public Utilities Commission. Service to the proposed Project can be provided without any adverse impact on the ability to provide communication service in the area. Conduit design would be provided by the service providers once specific development plans become available.

To provide service to the proposed development, enhancement and/or extensions of existing facilities within proximity to the Project sites may be required. Construction of the necessary improvements and/or extensions creates the potential for impacts such as construction-related dust, noise, and air emissions. The potential impacts associated with the construction of communication facilities are accounted for in other sections of this EIR (Sections 5.1 through 5.17). Any applicable mitigation measures identified in those sections will address potential significant impacts associated with construction of public utilities (in particular see Sections 5.3 Air Quality, 5.12 Noise, and 5.16 Traffic). Therefore, through consistent implementation of a variety of mitigation measures related to construction impacts as presented in Table 1.5 in Section 1, Executive Summary, no additional impacts related to construction and operation of the communication facilities would occur.

Cumulative Impacts

Cumulative development within the Project area as projected from buildout of the General Plan would increase electricity and natural gas consumption, as well as the need for communication facilities and services. Based upon present conditions of electricity and gas supply and regulatory policies, there are no significant impacts to electricity or gas services anticipated at this time; therefore the Project-related demand for natural gas would not be cumulatively considerable. AT&T Communications and Cox Communications would be able to accommodate the needs for telephone, data, and video services generated by this and other projects in the area. No adverse impacts on the ability to service the area would result.

Level of Significance Before Mitigation

The enhancement of public service infrastructure, poses the potential for significant impacts such as construction-related dust, traffic, and noise. The potential for such impacts is addressed in other sections of this DEIR and applicable mitigation measures have been identified, as appropriate.

Mitigation Measures

Measures contained in the mitigation monitoring program and which are identified in other sections of this DEIR (Sections 5.1 - 5.17) will address the environmental impacts associated with the construction and operation of public energy and communications facilities. These

measures are applicable to the construction and operation of new electrical energy facilities identified in this section to serve new growth expected in the Project area.

Level of Significance After Mitigation

With implementation of mitigation measures related to construction of development infrastructure, as addressed and identified in other sections of this DEIR, potential impacts would be reduced to a level that is less than significant.

5.17.5 REFERENCES

All notes and references listed below are available for public review at the City of Irvine Community Development Department, One Civic Center Plaza, Irvine, California.

1. California Integrated Waste Management District. Jurisdiction Diversion Program and Diversion Rate Summary website.
<http://www.calrecycle.ca.gov/LGCentral/Tools/PARIS/jurpgmsu.asp?VW=Out&Yr=2009&Ju=446>. Accessed on June 2011.
2. Orange County Integrated Waste Management District. *Countywide Integrated Waste Management Plan*. 1996.
3. City of San Juan Capistrano. *Final Report Sanitary Sewer System Master Plan*. Prepared by Tetra Tech, Inc., January 21, 2004.
4. City of San Juan Capistrano. *General Plan*. December 1999.
5. City of San Juan Capistrano. *Non-Domestic/Recycled Water Master Plan Update*. Prepared by AKM Consulting Engineers, March 2008.
6. City of San Juan Capistrano. *Water Master Plan Update*. Prepared by AKM Consulting Engineers, March 2004.