5.11 UTILITIES AND SERVICE SYSTEMS

This section addresses utilities and service systems including: Water Supply and Distribution Systems, Wastewater Treatment and Collection, Solid Waste, and Dry Utilities. Storm Drainage Systems are addressed in Section 5.5, Hydrology and Water Quality.

The analysis in this section is based in part on the following technical reports:

- *The Platinum Triangle Drainage Study,* Merit Civil Engineering, Inc., September 2004 (Appendix F)
- *The Platinum Triangle Water Supply Assessment*, PSOMAS, February 3, 2005 (Appendix K)
- *Hydraulic Network Analysis for the City of Anaheim Platinum Triangle,* City of Anaheim Public Utilities Department Water Engineering Division, February 11, 2005 (Appendix K)
- *Platinum Triangle Sewer Study,* Merit Civil Engineering, Inc., October 2004, First Revision January 2005 (Appendix L)

A copy of these studies is included in the Technical Appendices to this DSEIR.

In addition, the following documents were utilized in the preparation of this analysis and are available for review at the City of Anaheim Planning Department.

- *The Platinum Triangle Standardized Development Agreement*
- *Updated and Modified Mitigation Monitoring Plan No. 106 for The Platinum Triangle*
- *City of Anaheim General Plan*

Furthermore, public service questionnaires were sent out to relevant agencies and their responses were used in this analysis (Appendix I).

5.11.1 Water Supply and Distribution Systems

5.11.1.1 Environmental Setting

With the exception of several small areas bordering the City Limits, the Anaheim Public Utilities Department provides water service throughout the City. The system includes approximately 749 miles of water mains, 61,500 active water meters and over 7,800 fire hydrants. The system facilities also include eight water connections to the Metropolitan Water District of Southern California (MWD), 26 active wells, one 920 million gallon (MG) reservoir for untreated water, one 15 MG per day water treatment plant, 12 reservoirs with a total capacity of more than 29 MG for treated water, seven chlorination facilities, and nine booster pump stations. See Figure 5.11-1, *City of Anaheim Major Water Facilities*. Approximately 340 acres within the City are either served by the City of Buena Park, the City of Orange, or Yorba Linda Water District. In addition, there is an unincorporated County "island" surrounded by the City of Anaheim. Southern California Water Company serves this area, which encompasses approximately 32 acres.

The City of Anaheim also provides water service to nearly 468 acres outside of the City Limits. Over 455 acres of this total consists of the unincorporated county island in West Anaheim generally bounded by Broadway, Katella Avenue, Brookhurst Street, and Gilbert Street on the north, south, east, and west, respectively.

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City of Anaheim Major Water Facilities

Source: City of Anaheim

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Baseline Conditions

The City utilizes two primary sources of water supply: groundwater produced from City-owned wells and imported water from the MWD. MWD obtains its water from the Colorado River and the State Water Project in northern California. The City currently pumps approximately 66 percent of its drinking water from local groundwater basins and purchases the remainder from MWD. The Lenain Filtration Plant filters incoming untreated MWD water, providing up to 15 mg of drinking water per day for Anaheim residents. In addition to these sources, the City maintains 17 interconnections with adjacent water purveyors that are available for emergency service. Of the City's MWD allotment, some are treated by the City's Lenain Treatment Plant and some are provided as treated water at one of their five treatment plants.

The Santa Ana River, Orange County's major river, flows through Anaheim and plays a vital role in re-charging the groundwater basin. Several recharge basins formed by levees along the river help to replenish the water table. The Orange County Water District (OCWD) has the responsibility for managing and conserving the groundwater basin and it uses approximately 750 acres of the Santa Ana Riverbed between Katella Avenue and Imperial Highway for recharging imported water from the MWD and natural flows of the river.

In recent years, the Orange County Water District has typically set the Basin Production Percentage (BPP) at 75 percent. However, due to the overdrafted state of the basin and changes to OCWD's groundwater management policies, the BPP was reduced to 66 percent in Fiscal Year 2003/2004 and currently remains at that level. Due to the cost differential of groundwater and imported water, the City typically pumps groundwater equal to the BPP and purchases the remaining water from MWD. In Fiscal Year 2003/2004, Anaheim pumped 51,499 acre-feet of groundwater and purchased 25,066 acre-feet from MWD.

The City's water system serves areas ranging in elevation from less than 60 feet to over 1,200 feet above sea level. In order to provide appropriate operating pressures for such a wide range of elevations, the water system is divided into 18 pressure zones. The lowest pressure zone operates at a static hydraulic grade line (HGL) elevation of 220 feet above sea level and the highest pressure zone has a static HGL elevation of 1,320 feet above sea level. The City's water distribution system is generally divided into two main geographic areas; the "Flatland Area" (i.e., 555 HGL elevation and below) and the "Hill and Canyon Area" (i.e., the 585 HGL elevation and above). The Flatland Area is approximately 21,000 acres, situated generally north and west of the Santa Ana River, and is almost entirely served by groundwater (with MWD imported water supplemented, as necessary). The Platinum Triangle is situated in the flatland area, west of the Santa Ana River, east of the I-5 Freeway, south of the Southern California Edison easement, and north of the Anaheim City limit. The Hill and Canyon Area is approximately 11,000 acres, situated generally south and east of the Santa Ana River, and is served primarily by imported water from MWD.

Based on a review of the Water System Planning Study prepared by Parsons Engineering Science (1999) and of the City's Urban Water Management Plan (2000), no widespread deficiencies in the City's water supply and distribution system exist based on the existing conditions. The City updates the UWMP on a five-year cycle. The latest copy, prepared in 2000, can be obtained from the Anaheim Public Utilities Department. Any improvements are directed towards achieving operational goals or improving overall system efficiency and reliability.

5.11.1.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

U-2 Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

U-4 Not have sufficient water supplies available to serve the project from existing entitlements and resources, and new and/or expanded entitlements would be needed.

5.11.1.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in parentheses after the impact statement.

IMPACT 5.11-1: UPGRADES TO THE EXISTING WATER SUPPLY AND DELIVERY SYSTEM WILL BE REQUIRED TO ADEQUATELY SERVE THE PROPOSED PROJECT. (THRESHOLDS U-2 AND U-4)

Impact Analysis: The City's 2004/05 water demand during normal hydrology is estimated as 77,000 acre-feet per year (afy) and this demand is projected to increase to 96,400 afy by 2024/25. This projection is consistent with the City's 2000 Urban Water Management Plan (UWMP) water demand projections including the General Plan to include overall City growth. However, since the new vision for The Platinum Triangle was part of the City's General Plan Update Program, approved in 2004, the new land use assumptions for The Platinum Triangle were not included in the City's 2000 UWMP. As such, a Water Supply Assessment was prepared by PSOMAS in 2005 to evaluate the City's water supply availability to serve The Platinum Triangle.

The Water Supply Assessment prepared by PSOMAS indicates that build-out of The Platinum Triangle per the Proposed Project would generate a build-out need over a 20-year planning horizon of approximately 2,656 afy or 2.371 million gallons/day (mgd) of potable water. This water demand analysis includes all 820 gross acres of The Platinum Triangle by land use designation at build-out year 2024/25 to reflect the 20-year planning period, as required by SB610. As shown in below Table 5.11-1, *Summary of Water Demands for The Platinum Triangle*, implementation of the Proposed Project would result in an increase of 1.425 mgd for 9,500 dwelling units, 0.651 mgd for 3,256,940 square feet for office use, and 0.334 mgd for 1,669,052 square feet of commercial use. Total increase of 2.371 mgd is adjusted for the removal of 0.039 mgd for 491,303 square feet of existing industrial space.

Table 5.11-1
Summary of Water Demands for The Platinum Triangle

Land Use	Additional Units/sq ft	Additional Water Use (mgd)	Maximum Day Demand (GPM)	Additional Water Use (afy)
Residential[1]	9,500 du	1.425 mgd	1,464	1596.2
Office[2]	3,256,940 sq ft	0.651 mgd	—	729.2
Commercial[2]	1,669,052 sq ft	0.334 mgd	—	374.1
Remove Industrial Uses[3]	491,303 sq ft	*–0.039 mgd*	–40	*–43.7*
Total	**N/A**	**2.371 mgd**	—	**2,656**

Notes:
1 Residential water usage is based on estimated 1.5 persons per DU and 100 gallons per capita per day.
2 Office and commercial water usage is based on 200 gallons per 1,000 square feet used by Los Angeles and Orange County Sanitation Districts to project wastewater flow.
3 Industrial water usage is based on 80 gallons per 1,000 square feet, as provided by Water Department staff.

There is a slight discrepancy in the water consumption rate used for the above analysis and the Memorandum from the City's Water Engineering Division. While the Water Supply Assessment used 200 gallons per 1,000 square feet for both office and commercial use, the City used 240 gallons per 1,000 square feet for office use and 120 gallons per 1,000 square feet for commercial use. This resulted in a total demand of 0.985 mgd for both office and commercial uses in the Water Supply Assessment and a total demand of 0.982 mgd in the City's Memorandum. However, an addition of extra 0.003 mgd analyzed by the Water Supply Assessment would not impact the conclusion of the study.

As discussed previously, the City receives approximately 66 percent of its water supply from its groundwater wells that access the Orange County Groundwater Basin and 34 percent imported water from the Metropolitan Water District of Southern California (MWD). From these two water sources the City met its 2003/04 water demand of approximately 76,900 afy. Below Table 5.11-2, *Historic Water Production by Source*, illustrates historic water production by source for the past five years.

Table 5.11-2
Historic Water Production by Source

Source	1999/00	2000/01	2001/02	2002/03	2003/04
Groundwater	52,915 (66%)	60,049 (78%)	62,900 (78%)	50,852 (68%)	51,831 (67%)
Imported Water	27,153 (34%)	16,560 (22%)	17,237 (22%)	23,943 (32%)	25,066 (33%)
Total Supply	**80,068**	**76,609**	**80,137**	**74,795**	**76,897**

Source: Water Supply Assessment, PSOMAS, Revised January 2005.

Based on studies and reports of the OCWD and MWD, it is anticipated that groundwater and imported water supplies would remain relatively stable to the City throughout the forecast period. In addition, the 20-year development phase plan also allows for the potential to have water demands met from sources that are currently being planned, developed and implemented within the region, including, but not limited to, additional conservation programs, recycled water, and desalted water. Therefore, as shown in Table 5.11-3, *Projected Water Supply and Demand*, analysis of water supply projections for the City demonstrates that projected supply capacity exceeds projected demand through Fiscal Year 2024/25.

Table 5.11-3
Projected Water Supply and Demand

Water Sources	2004/05	2009/10	2014/15	2019/20	2024/25
SUPPLY					
Groundwater	55,902	70,470	72,990	73,785	74,280
Imported – Treated	87,985	87,985	87,985	87,985	87,985
Imported – Untreated	16,800	16,800	16,800	16,800	16,800
Total Potable Supply	**160,687**	**175,255**	**177,775**	**178,570**	**179,065**
DEMAND					
The Platinum Triangle	0	672	1,344	2,016	2,656
City	84,700	93,300	96,000	96,400	96,400
Total Potable Demand	**84,700**	**93,964**	**97,328**	**98,392**	**99,056**
Potable Supply Surplus	***75,987***	***81,291***	***80,447***	***80,178***	***80,009***

Water demands were calculated in 5-year increments over a 20-year build-out period. For example, in year 2009/10, five years after project approval, water demand is estimated at 93,300 afy for the City without the project and at 93,964 afy with the project; an increase of 672 afy is attributed to The Platinum Triangle. In comparison, estimated water supply for the same year is 175,255 afy; therefore, even with the project implementation, an excess water supply of 81,291 afy would still remain. At build-out, The Platinum Triangle will require an estimated 2,656 afy of water in addition to the projected 96,400 afy for the City. However, total potable water supply for year 2024/25 is 179,065 afy, resulting in an estimated 80,009 afy of surplus water.

Although the Total Potable Supply capacity shown on Table 5.11-3 is equivalent to the City's well and MWD connection capacities, it does not necessarily represent the City's maximum system delivery capacity. In reality, the City's source water agencies, OCWD and MWD, plan to reliably meet their respective agencies' long-term water demands (not supply capacities). Therefore, although there is a supply surplus for each year in Table 5.11-3, *Projected Water Supply and Demand*, it is important to note that the City plans to continue pumping up to OCWD's Basin Production Percentage (between 65 and 75 percent in the long term) and supplement its remaining demands with MWD water purchases. MWD and OCWD are aware of the City's plans and continue to plan for the City's long-term demands as identified in regional planning documents such as MWD's Integrated Resource's Plan and OCWD's Long Term Facilities Plan and Groundwater Management Plan. Based on the above, implementation of the Proposed Project would not result in shortage of potable water supply to the City.

The 20-year projection of water demand will be met by approximately 75 percent groundwater, based on an expected long-term Basin Production Percentage (BPP), and 25 percent imported water confirmed reliable by MWD. Additionally, analysis of normal, single-dry, and multiple-dry year scenarios also demonstrate the City's ability to meet or exceed demand during the 20-year planning period, even under reduced imported water supply conditions. Additionally, the City has the ability to increase supply to meet demand, if extra-ordinary circumstances require, through the following measures: 1) production of groundwater above the BPP up to the basin safe yield; 2) increasing imported water purchases; and 3) increased water conservation measures. The City is not proposing to use recycled water in The Platinum Triangle since the City's water infrastructure does not support recycled water distribution. However, new development within The Platinum Triangle is required to provide separate irrigation services for recycled water, so that the infrastructure is in place in the event that recycled water distribution is implemented.

Water Delivery System

Rule 15-D of Anaheim's Water Rules, Rates and Regulations (Plan No. W2524C) specifies the water facility improvements required to accommodate the projected land use water demands within the City, including The Platinum Triangle. Under Rule 15-D, a new 3,500 GPM Well No. 45 was constructed in 2003 and currently supplies most of the demands in and around The Platinum Triangle area. New 16-inch diameter mains along Orangewood Avenue at the I-5 Freeway and State College Boulevard near Katella Avenue were also constructed to improve water flows in The Platinum Triangle. In addition, several other main improvement projects specified in Rule 15-D are currently in planning or design phase.

Ultimately, changes in land use projections and addition of water facilities will require updating Rule 15-D; however, under existing Rule 15-D, the projected demands for new office, commercial, and industrial land uses have already been accounted for in determining water facility improvements. The only significant changes, in terms of projected demand quantity for the Proposed Project, were the demands resulting from new residential dwelling units.

As indicated above, approximately 1.43 mgd, or 1,464 gallons per minute (GPM), of increase would result from the Proposed Project. To meet this additional demand, the City's Water Engineering Department determined that drilling a 1,500 GPM capacity well within the Project Area would be required.

Three alternatives were evaluated to supply the additional demand: 1) construction of a 1,500 GPM capacity well and pump station; 2) construct a 3,000 GPM capacity well and pump station, thus providing additional redundancy to the water system; and 3) construct a 3,000 GPM well with a 1,500 GPM capacity pump station, which can be upgraded in the future if needed. Although the City recommended alternative No. 3, construction of a 3,000 GPM well with a 1,500 GPM capacity pump station, as its preferred alternative, implementation of any one of three options would ensure that adequate water delivery system is provided for The Platinum Triangle. The City also determined that all transmission main capacities as specified in Rule 15-D are adequate to accommodate both 1,500 GPM and 3,000 GPM wells and no other water improvements other than a new well would be required to provide water service to The Platinum Triangle. However, the City still needs to secure a suitable well site in The Platinum Triangle.

Therefore, provided that a new well is constructed to meet additional 1,464 GPM water demand, implementation of The Platinum Triangle Master Land Use Plan would not adversely impact the water delivery system and the impacts would be less than significant.

5.11.1.4 Cumulative Impacts

The Proposed Project would result in increased demand for water supply and distribution systems. As discussed in above Section 5.11.1, *Environmental Impacts*, analysis of the future water supply and demand projections demonstrated that there is adequate water supply to accommodate projected growth within the City, including The Platinum Triangle. Even with the supply surplus, the City plans to continue pumping up to OCWD's Basin Production Percentage and the MWD and OCWD, the City's source agencies area aware of the City's plans and continue to plan for the City's long-term planning program demands. Furthermore, the City utilizes an Urban Water Management Plan which is updated every five years to project and plan for changes. As such, no significant water impacts relating to cumulative development in accordance with the City's adopted General Plan are anticipated.

5.11.1.5 Existing Regulations and Standard Conditions

- In accordance with SB 610, a water supply assessment has been completed for the Proposed Project which demonstrates that an adequate water supply is available to serve the project.

5.11.1.6 Level of Significance Before Mitigation

Without mitigation, Impact 5.11-1 is considered **potentially significant**.

5.11.1.7 Mitigation Measures

Applicable Measures from MMP No. 106

The following mitigation measures were included in Mitigation Monitoring Program No. 106 for The Platinum Triangle, and were previously adopted as part of the Stadium Area Master Land Use Plan EIR and the General Plan and Zoning Code Update EIR No. 330. Some of these measures are being revised as part of this Subsequent EIR. Additions are shown in **bold** and deletions are indicated in strikeout format.

~~5.11-1 A new Well No. 45 will be installed to replace the existing Well 33. This new well will be installed at a location acceptable to the Utilities Department. In addition, the existing Well No. 33 will be removed.~~ [Note: This mitigation measure has been completed and is no longer necessary.]

~~5.11-2 A new 16 inch pipeline will be constructed in State College Boulevard from Well No. 45 to the existing 18 inch line at the intersection of Katella Avenue and State College Boulevard. This new pipeline will complete a loop within the sites proposed and surrounding system.~~ [Note: This mitigation measure has been completed and is no longer necessary.]

5.11-1 Prior to issuance of a building permit**,** submitted landscape plans shall demonstrate compliance with the City of Anaheim adopted Landscape Water Efficiency Guidelines. This ordinance is in compliance with the State of California Water Conservation in Landscaping Act (AB 325).

Among the measures to be implemented with the project are the following:

- Use of water-conserving landscape plant materials wherever feasible;
- Use of vacuums and other equipment to reduce the use of water for wash down of exterior areas;
- Low-flow fittings, fixtures and equipment including low flush toilets and urinals;
- Use of self-closing valves for drinking fountains;
- Use of efficient irrigation systems such as drip irrigation and automatic systems which use moisture sensors;
- Infrared sensors on sinks, toilets, and urinals;
- Low-flow shower heads in hotels;
- Infrared sensors on drinking fountains;
- Use of irrigation systems primarily at night, when evaporation rates are lowest;
- Water-efficient ice machines, dishwashers, clothes washers, and other water using appliances;

- Cooling tower recirculating system;
- Use of low flow sprinkler heads in irrigation system;
- Use of waterway re-circulation systems;
- Provide information to the public in conspicuous places regarding water conservation; and
- Use of reclaimed water for irrigation and washdown when it becomes available.

In conjunction with submittal of landscape and building plans, the applicant shall identify which of these measures have been incorporated into the plans.

5.11-2 Prior to the issuance of the first building permit, the ~~applicant will~~ **property owner/developer shall** provide engineering studies, including network analysis, to size the water mains for ultimate development within the project. This includes detailed water usage analysis and building plans for Public Utilities Water Engineering reviews and approval in determining project water requirements and appropriate water assessment fees.

5.11-3 Prior to the issuance of the first building permit or grading permit, whichever occurs first, ~~projects shall indicate~~ **the property owner/developer shall indicate** on plans installation of a separate irrigation meter when the total landscaped area exceeds 2,500 square feet. (City of Anaheim Water Conservation Measures)

5.11-4 Prior to the issuance of the first building permit or grading permit, whichever occurs first, ~~projects~~ **the property owner/developer** shall comply with ~~the adopted Stadium Business Center Water Facilities Fee Program~~ (Rule 15D of the Water Utilities Rates, Rules, and Regulations ~~per Resolution No. 99R-142, effective September 22, 1999)~~. **Rule 15D shall be amended to include construction of a new well with a minimum 1,500 GPM capacity within The Platinum Triangle.**

Additional Mitigation

No additional mitigation measures are required.

5.11.1.8 Level of Significance After Mitigation

The mitigation measures identified above would reduce potential impacts associated with water supply and distribution systems to a level that is less than significant.

5.11.2 Wastewater Treatment and Collection

5.11.2.1 Environmental Setting

Regional Setting

The City of Anaheim's local sanitary sewer system serves the project vicinity, and is tributary to the Orange County Sanitation District (OCSD) District 2. The entire OCSD system encompasses 450 square miles of northern and central Orange County. OCSD operates the third largest wastewater system on the West Coast, consisting of over 650 miles of trunk and sub-trunk sewers, two regional wastewater treatment plants, and an ocean disposal system.

Wastewater from the City sewer system is conveyed to the County trunk and interceptor sewer to regional treatment and disposal facilities. The major OCSD sanitary sewers serving the Project Area are the Newhope-Placentia Trunk, the Olive Sub-trunk, the Orangewood Diversion Sewer and the Santa Ana River Interceptor (SARI) line.

Newhope-Placentia/Orangewood Basin: The Newhope-Placentia Trunk is 39 inches in diameter and flows southerly down State College Boulevard to Orangewood Avenue. At Orangewood Avenue, the Newhope-Placentia Trunk turns to the west past the western boundary of the Stadium to Lewis Street, then south to Lewis Street through the City of Orange to the County SARI. The properties along Orangewood Avenue are tributary to the Newhope-Placentia Trunk via 8-inch City sewers in and along the street. The northerly limit of this basin is generally Gene Autry Way (west of State College Boulevard) and the backside of the businesses along Orangewood Avenue. The easterly limit is the Santa Ana River, the southerly the City boundary and the westerly limit is the I-5 Freeway.

Olive Basin: The Olive Sub-trunk is located along Katella Avenue at the northeastern end of the Project Area and continues in a westerly direction through Howell Avenue to connect to the Newhope-Placential Trunk at State College Boulevard. The size of the line within that reach ranges from 24 inches to 30 inches in diameter. The Olive Sub-trunk also collects sewage from areas east of the Santa Ana River. All flow east of the Santa Ana River can be diverted to the Santa Ana River Interceptor.

Orangewood Diversion Sewer: The old County Newhope-Placentia Trunk is located at the north end of the Project Area and flows southerly within State College Boulevard from the Edison Corridor to Orangewood Avenue then easterly along Orangewood Avenue to the County SARI. The size of the line within this reach ranges from 36 inches to 42 inches in diameter. Flows north of the State College Boulevard/Orangewood Avenue intersection (in the old alignment of the Newhope-Placentia line) can be diverted easterly by the OCSD Orangewood Diversion Sewer. The OCSD Orangewood Diversion Sewer was built to alleviate a deficiency in the Newhope-Placentia Trunk identified by OCSD in their 1991 Master Plan. Currently, there is a diversion structure that allows sewage to gravity-flow either east or west down Orangewood Avenue from State College Boulevard.

The effluent discharge to the ocean is a blend of advanced primary and secondary treated wastewater as specified in the OCSD's NPDES permit. OCSD maintains two wastewater treatment plants within Orange County; Reclamation Plant No. 1, located in Fountain Valley, and Treatment Plant No. 2, located in Huntington Beach. In 2003, the OCSD discharge averaged 239 mgd and provided secondary treatment to approximately 64 percent (153 mgd) of its total flow.[5] OCSD plans to upgrade the level of wastewater treatment at both of its treatment plants to meet secondary treatment standards for the projected 2020 effluent flow of 240 to 320 mgd.

Plant No. 1 is located at 10844 Ellis Avenue in the City of Fountain Valley about four miles northeast of the ocean and adjacent to the Santa Ana River. The plant received wastewater from six major sewer pipes and provides advanced primary and secondary treatment. Secondary effluent is either blended with advanced primary effluent and routed to the ocean disposal system, or is sent to Orange County Water District (OCWD) for further treatment and distribution for reclaimed water uses.

Plant No. 2 is located at 22212 Brookhurst Street in the City of Huntington Beach adjacent to the Santa Ana River about 1,500 feet from the Pacific Ocean. The plant receives wastewater from five major sewers. All of the effluent from the plant is discharged to the ocean outfall disposal system.

[5] OCSD Full Secondary Summary Report, 2003.

Local Setting

Sewer service within the Project Area is provided by the City of Anaheim and OCSD. The City of Anaheim has a collection system of gravity sewer lines that service the area, which are tributary to the County's system. OCSD has three major gravity trunk sewers and a gravity diversion sewer in the Project Area. City sewers within the South Central Basin (generally west of State College Boulevard) are tributary to the South Anaheim Interceptor or the Euclid Trunk (via the Katella Avenue Relief sewer) approximately 1.8 miles west of the Project Area.

Stadium Crossing System: Within the Stadium Crossing System, a 15-inch gravity sewer line lies within the northern portion of the development area within State College Boulevard from the Edison Corridor to Katella Avenue. An 8-inch gravity sewer line also exists north of the centerline in Katella Avenue that enters the same manhole as the above 15-inch line prior to entering the County Sanitation trunk sewer line in State College Boulevard.

Tinseltown Sewer System: The Tinseltown Sewer System consists of an 8-inch sewer line that starts at the State College Boulevard and Katella Avenue intersection, and continues upstream along Katella Avenue north of the centerline for approximately 440 feet, then south for 50 feet, then easterly for 480 feet to its end.

Sportstown Sewer System: The Sportstown Sewer System is tributary to the County's old Newhope-Placentia trunk line in State College Boulevard by a 15-inch line extending from the west side of the Stadium westerly to the County's trunk in State College Boulevard.

South Central Area Basin: A City sewer line in Katella Avenue begins approximately at State College Boulevard, and continues westerly towards the west end of the Project Area. This line ranges in size from 18 inches to 21 inches in diameter.

Orangewood Avenue Sewer System: Since the County's Newhope-Placentia trunk sewer runs in Orangewood Avenue from State College Boulevard to Lewis Street, all City sewers consisting of short legs/runs at Santa Cruz Street, Anaheim Boulevard, and Cypress Street tie directly into the County Orangewood Avenue trunk.

5.11.2.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

U-1 Would exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

U-2 Would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

U-5 Would 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.

5.11.2.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in parentheses after the impact statement.

IMPACT 5.11-2: UPGRADES TO EXISTING WASTEWATER FACILITIES WILL BE REQUIRED TO ADEQUATELY SERVE THE PROJECT. (THRESHOLDS U-1, U-2, AND U-5)

Impact Analysis: The City of Anaheim is served by a comprehensive sanitary sewer system and no wastewater would be discharged impacting surface water or groundwater resources. Therefore, no exceedance of RWQCB's wastewater treatment requirements is anticipated and the impacts to groundwater would be less than significant.

Existing Sewer Deficiencies – City's Collection System

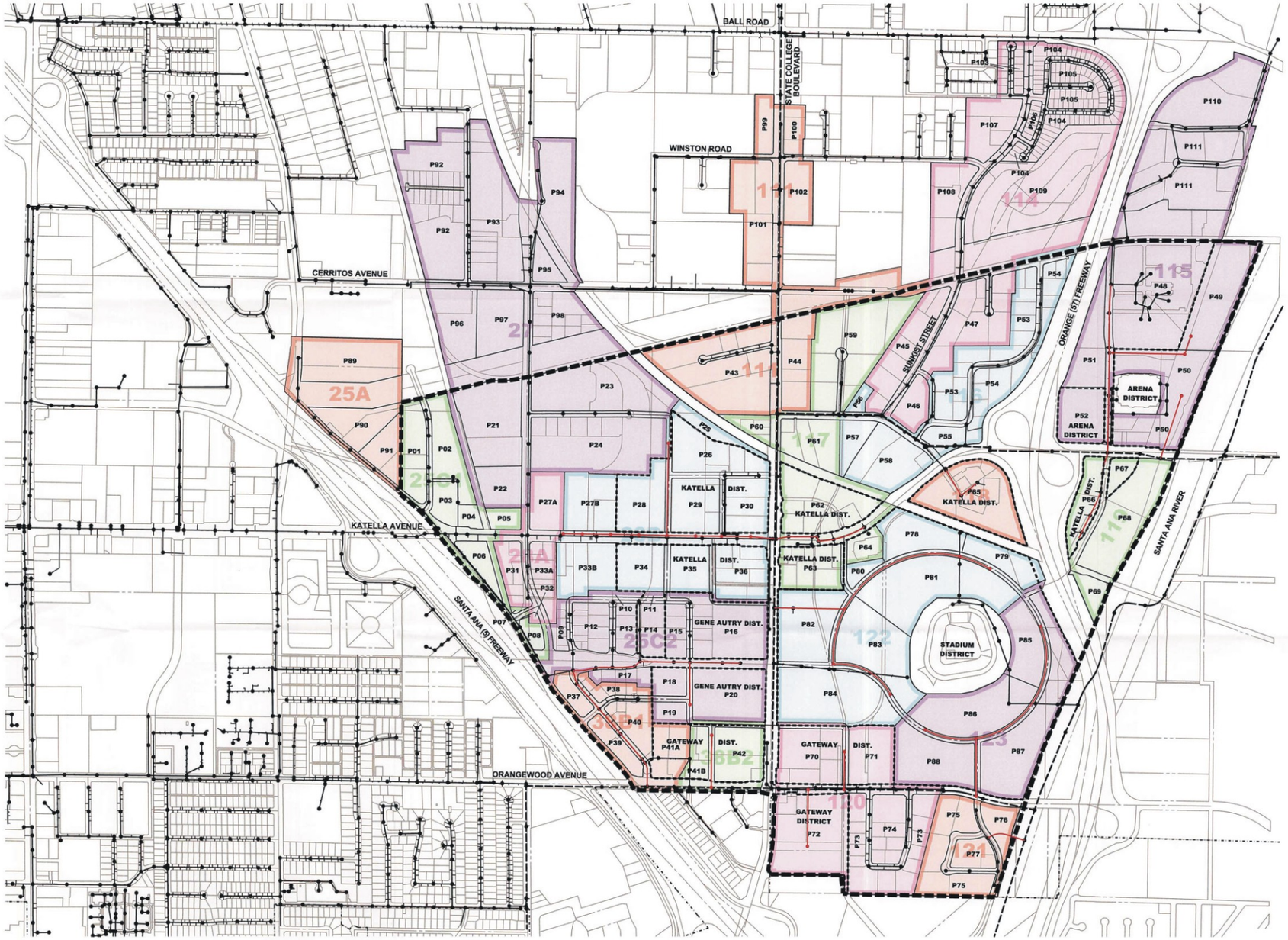
A sewer study was prepared for the Proposed Project in October 2004 and revised in January 2005 by Merit Civil Engineering, Inc. This study performed an analysis of the sewer system in The Platinum Triangle and made recommendations for sewer improvements to meet the Proposed Project's increased sewer demand. In most cases, existing area trunk sewers are either already at capacity or have been previously allocated to future development. Therefore, existing sewer infrastructure within the study area would not be capable of conveying the increase in wastewater generated by the proposed development intensities.

In order to evaluate the downstream sewer infrastructure deficiencies, The Platinum Triangle area was divided into 88 Benefit Parcels (P01 thru P88) as shown in Figure 5.11-2, *Proposed Sewer Improvements*. The Benefit Parcels were established based on land use, existing and conceptual street right-of-way, sewer basin boundaries and the five PTMLUP development districts. The on-site sewer flows from the PTMLUP mixed-use districts are tabulated by district in Table 5.11-4, *District Overall Mixed-Use Flow Calculation*.

Based on the above flow calculation at build-out, the sewer study determined that upsizing and replacement of existing sewer facilities would be necessary for adequate wastewater flow. Suggested sewer improvements within The Platinum Triangle are included in Appendix L, *Sewer Study* (January 2005 – First Revision) and are summarized in Table 5.11-5, *Proposed Sewer Improvements*. It is noted that as an alternative to constructing a 10-inch parallel reverse-flow sewer to a 12-inch reverse-flow sewer to be constructed by the GardenWalk Development (outside of The Platinum Triangle) from Betmor to State College Boulevard, the sewer study recommends upsizing sewer facilities in Gene Autry Way to in the range of 12 to 15 inchesin diameter and divert southerly into upsized Santa Cruz (15-inch) sewer facilities.

Provided that listed improvements as summarized in Table 5.11-5, *Proposed Sewer Improvements*, are completed, sewer impacts would be less than significant. The necessary improvements would be implemented by the City and funded through The Platinum Triangle Standardized Development Agreement.

Proposed Sewer Improvements



NOT TO SCALE

Source: Merit Civil Engineering, Inc.

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Table 5.11-4
District Overall Mixed-Use Flow Calculation

Land Use	Unit	Average Flow (GPD)	Peak Flow (GPD)
Gateway District (50.16 acres)			
Residential[1]	2,075 DU	394,250	985,625
Office[2]	530,000 sq ft	106,000	212,000
Commercial[2]	50,000 sq ft	10,000	20,000
Total		*510,250*	*1,217,625*
Katella District (90.84 acres)			
Residential[1]	4,250 DU	807,500	2,018,750
Office[2]	775,000 sq ft	155,000	310,000
Commercial[2]	630,300 sq ft	126,060	252,120
Total		*1,088,560*	*2,580,870*
Stadium District (119.48 acres)			
Residential[1]	1,750 DU	332,500	831,250
Office[2]	1,760,000 sq ft	352,000	704,000
Commercial[2]	1,300,000 sq ft	260,000	520,000
Total		*944,500*	*2,055,250*
Gene Autry District (29.04 acres)			
Residential[1]	1,000 DU	190,000	475,000
Office[2]	100,000 sq ft	20,000	40,000
Commercial[2]	174,100 sq ft	34,820	69,640
Total		*244,820*	*584,640*
Arena District (35.81 acres)			
Residential[1]	425 DU	80,750	201,875
Office2	100,000 sq ft	20,000	40,000
Commercial[2]	100,000 sq ft	20,000	40,000
Total		*120,750*	*281,875*

Notes: [1] Peaking Factor 2.50; [2] Peaking Factor 2.0
GPD – Gallons per Day

Table 5.11-5
Proposed Sewer Improvements

Location	Length (ft)	Size Range	Model/Basin	Comment
Katella Ave	2,262	15" – 21"	08/28B	Katella Reverse-Flow Sewer
Katella Dist.	1,000	12"	08/28B	Serves P26 (in Concept Street)
Gene Autry Dist.	450	8"	08/25C2	Serves P19 (in Concept Street)
Gene Autry Way	1,093	12" – 15"	47D/25C2	Upsize Existing 8" and 10" Sewers
Santa Cruz St.	1,509	15"	47D/38B1	Upsize Existing 8" Sewer
West Gateway District	550	12"	47/38B2	Serves P41B and P42
East Gateway District	1,000	15"	120/New	Serves P70, P71, and P72
West Stadium District	3,870	18"	122/122	Serves P78, P79, P80, P81, P82, P83, and P84
South Stadium District	2,743	18"	123/123	Serves P85, P86, P87, and P88
Rampart Easement	337	12"	121/121	Replace existing 8"sewer
Douglass Road	876	10"- 15"	119/119	Replace existing 8" sewer
Katella/Howell	551	12"	118/118	Replace existing 8" – 10" sewer
Katella Avenue	1,025	15"– 18"	117/117	Replace existing 8" sewer
Douglass Road	1,805	12"	115/115	Replace existing 10" sewer
Arena District	1,000	10"	115/115	Serves P49 (in Proposed Easement)
Arena District	700	10"	115/115	Serves P50 (in Proposed Easement)
Total	**20,771**			

Source: Platinum Triangle Sewer Study, Merit Civil Engineering, Inc., First Revision, January 2005.

5.11.2.4 Cumulative Impacts

Development of The Platinum Triangle would create additional wastewater treatment demand on the OCSD's area trunk sewers as well as the City's collection system. OCSD staff has indicated that various lines will need to be upsized to accommodate the ultimate build-out of The Platinum Triangle, in particular the Newhope-Placentia Trunk on State College Boulevard from Howell Avenue to Orangewood Avenue and possibly the Olive Sub-Trunk on Katella from the Santa Ana River to State College. Improvements will include the construction of a parallel sewer or the replacement of the existing sewer line with one with an increased diameter (the estimated timeframe for completion of these improvements is approximately two years to design and complete from the approval of the development agreement). Currently property owners/developers are required to pay OCSD fees prior to the issuance of a building permit. OCSD staff has requested, as a mitigation measure for this project, that fees be paid at an earlier point for Platinum Triangle mixed-use projects (within 90 days following the effective date of the Development Agreement entered into between the City of Anaheim and the property owner/developer). This would enable OCSD to construct the improvements and have sufficient capacity to accommodate projects within The Platinum Triangle. . OCSD staff has also requested as a mitigation measure, that the improvements to the trunk lines be coordinated with Platinum Triangle Master Land Use Plan street/infrastructure improvements that will be implemented by the City and/or the property owner/developers.

For the replacement/addition of pipelines, the construction process involves trench excavation, and removal and replacement of the sewer pipelines. It is preferred that pipeline alignments be within public streets, but utility conflicts may require the obtainment of easement corridors. Jack and bore methods may be used for the crossing of flood control channels and select intersections. The use of heavy equipment in construction would result in community disruption impacts, including the generation of noise, dust, construction traffic,

and the disruption of streets and access to adjacent land uses. Sensitive receptors (e.g., residences, hospitals, fire stations, schools, parks, stadiums, and churches), would be most affected.

The pace of work for pipeline replacement projects is estimated to average 50 to 100 feet per day per crew. The length of time that active construction work is immediately in front of a property (assuming, for example, a 100-foot lot line) will likely be three to five days. Construction activities will be limited to weekdays during daylight hours, or as specified in encroachment permits from the County Cities and other responsible agencies.

Noise and dust would affect people in the area that include local business, stadiums, parks, hospitals, schools, and churches. Access disruption could occur for hospitals, fire stations, businesses and residents. However, land use disturbance is considered a significant but mitigable impact due to the limited duration and extent of construction. In addition, construction during specified daylight hours would further reduce impacts. With proper mitigation, temporary construction impacts would have a less than-significant effect on the adjacent land uses. Impacts resulting from construction traffic, noise, and air quality are discussed in Sections 5.10, 5.7, and 5.2, respectively.

Although the proposed project would result in increases in sewer demand beyond what is currently programmed in the existing General Plan, implementation of the wastewater mitigation measures stated in this section will ensure no sewer deficiencies occur as a result of the proposed project. As a result, wastewater impacts associated with the project would be reduced to a less than significant level.

5.11.2.5 Existing Regulations and Standard Conditions

There are no existing regulations or standard conditions related to wastewater.

5.11.2.6 Level of Significance Before Mitigation

Without mitigation, Impact 5.11-2 would be **potentially significant.**

5.11.2.7 Mitigation Measures

Applicable Measures from MMP No. 106

The following mitigation measures were included in Mitigation Monitoring Program No. 106 for The Platinum Triangle, and were previously adopted as part of the Stadium Area Master Land Use Plan EIR and the General Plan and Zoning Code Update EIR No. 330. Some of these measures are being revised as part of this Subsequent EIR. Additions are shown in **bold** and deletions are indicated in strikeout format.

~~5.11-8~~ ~~In accordance with Title 17, Chapter 17.32 (Resolution 99R-48), the property owner/developer shall submit a sewer study to the Public Works Department, prepared to the satisfaction and subject to the approval of the City Engineer. If said study determines that there is currently adequate capacity for the proposed project, the property owner/developer shall pay the fee. If said study determines that there is not adequate capacity, the property owner/developer shall be responsible for a combination of paying the fee and constructing improvements as required by the City Engineer.~~ [Note: A sewer study has been completed for The Platinum Triangle. As a result, this mitigation measure is no longer necessary.]

5.11-5 The City Engineer shall review the location of each project to determine if it is located within an area served by deficient sewer facilities**, as identified in The Platinum Triangle Sewer Study**. ~~If the City Engineer determines that the above condition exists, the property owner/developer shall conduct a sanitary sewer study to be reviewed and approved by the City Engineer.~~ If the project

will increase sewer flows beyond those programmed in the appropriate master plan sewer study for the area or if the project currently discharges to an existing deficient sewer system or will create a deficiency in an existing sewer line, the property owner/developer shall be required to guarantee mitigation of the impact to adequately serve the area to the satisfaction of the City Engineer and City Attorney's Office. The property owner/developer shall be required to install the sanitary sewer facilities, as required by the City Engineer to mitigate the impacts of the proposed development based upon the **Benefit Parcels and Development Mitigation (Appendix D of The Platinum Triangle Sewer Study)** ~~applicable sewer deficiency study~~, prior to acceptance for maintenance of public improvements by the City or final Building and Zoning inspection for the building/structure, whichever occurs first. Additionally, the property owner/developer shall participate in the Infrastructure Improvement (Fee) Program, if adopted for the Project Area, as determined by the City Engineer, which could include fees, credits, reimbursements, construction, or a combination thereof.

Additional Mitigation

5.11-6 Within 90 days following the effective date of each Development Agreement for The Platinum Triangle mixed-use area entered into between the City of Anaheim and the property owner/developer, the property owner/developer shall submit proof to the Planning Services Division of the Planning Department that the County Sanitation District of Orange County (OCSD) fees due for the project have been paid. Further, this requirement shall be added to the Project requirements set forth in Exhibit "C" (Conditions of Approval) of the Development Agreement.

5.11-7 Prior to the approval and ongoing during construction of any street improvement plans within The Platinum Triangle which encompass area(s) where OCSD will be upsizing trunk lines and/or are making other improvements, the City and/or property owner/developer shall coordinate with the OCSD to ensure that all improvements and construction schedules are coordinated.

5.11.2.8 Level of Significance After Mitigation

The mitigation measures identified above would reduce potential impacts associated with wastewater treatment and collection to a level that is less than significant.

5.11.3 Solid Waste

5.11.3.1 Environmental Setting

Taormina Industries, doing business as Anaheim Disposal, provides solid waste collection and disposal for the City of Anaheim. After the waste is collected, it is processed through Taormina Industries' Regional Material Resource Recovery Facility. The Facility contains an 800-foot-long automated and manual sorter/conveyor system that separates more than 70 types of recyclables. The Facility processes an average of 3,200 tons of material each day. Once the materials have passed through the sorter/conveyer system, they are bundled and transferred for immediate shipment to domestic and international markets. Nonrecyclable waste that remains is moved to the on-site 40,000-square foot solid waste transfer operation for final processing and consolidation before delivery to Southern California landfills. Household toxic waste is disposed of at the North Orange County Household Hazardous Waste Collection Facility operated by the County of Orange and located at 1071 North Blue Gum Street in Anaheim, which is also the site of the Taormina Industry headquarters.

Landfills

It is necessary to distinguish between refuse disposal capacity and flow rate or daily tonnage when discussing solid waste capacity for Orange County. Refuse disposal capacity refers to the available air space capacity at the landfill. Daily capacity refers to the maximum amount of daily tonnage that may be disposed. These capacities are established in the landfill permit. Orange County owns and operates three active landfills, as shown on Table 5.11-6. These are Olinda Alpha Landfill near Brea, the Frank R. Bowerman Landfill near Irvine, and the Prima Deschecha Landfill in San Juan Capistrano. In order to ensure that the maximum permitted daily tonnage at a particular landfill is not exceeded, refuse trucks may have to transport material to one or the other. It has been estimated by the California Integrated Waste Management Board that the City of Anaheim residents produce between 400,000 and 500,000 tons of waste each year. The City of Anaheim is under contract to Orange County to commit all of its waste to the County landfill system until the year 2007. The majority of this waste is taken to the Olinda Alpha Sanitary Landfill, which is located in the City of Brea. The Olinda Alpha Landfill is the closest facility to the project and would likely be the solid waste facility most often receiving waste from the Project Area. This landfill has a daily tonnage maximum of no more than 8,000 tons per day. As of June 30, 2003, the remaining total air space capacity at the landfill was 44.7 million cubic yards. The Olinda Landfill has a permitted life to 2023, but is currently scheduled to close by agreement with the City of Brea in the year 2013. The City of Anaheim also uses the Frank R. Bowerman Landfill, which is scheduled to close in approximately 2022. The Frank R. Bowerman Landfill has a daily permitted tonnage of no more than 8,500 tons per day.

Table 5.11-6
Orange County Landfills

Landfill	*Solid Waste Facilities Permit (SWFP) Issue Date*	*Permitted Tonnage (TPD)*		*Permitted Airspace (MCY)*	*Remaining Airspace as of 6-30-00 (MCY)*	*Cum. Airspace Filled as of 6-30-0 (MCY)*	*Annual Refuse Filled 7-1-99 to 6-30-00 (Tons)*	*Remaining Refuse Tonnage as of 6-30-00 (Million Tons)*
		Daily Max.	*Daily Avg.*					
Frank R. Bowerman	1996	8500	7263	117	84.1	32.9	2005.021	42.23
Olinda Alpha	1996	8000	7000	123.1	57.6	65.5	1929341	31.98
Prima Deshecha	1995	4000	4000	108	90.1	17.9	693278	45.06
Santiago Canyon	1994	4900	4900	26	2.3	23.7	0	1.15
Total	—	**25400**	**23163**	**374.1**	**234.7**	**139.3**	**4627640**	**120.42**

TPD = Tons Per Day MCY = Million Cubic Yards 1 CY Airspace = 0.6 Ton Refuse

Recycling

In accordance with State law, the City of Anaheim has achieved steady gains in its diversion rate of solid waste from landfills, though conservation, recycling, and composting. The City's diversion rate increased from 44 percent in 1995 to 50 percent in 2000. The City is required to maintain this diversion rate of 50 percent. In order to facilitate the diversion of waste from landfills, the City of Anaheim participates in over 20 programs.

The City of Anaheim's recycling program, Recycle Anaheim, consists of an automated trash collection program along with a broader recycling and yard waste collection system. In collaboration with its private

contractor, the City provides an automated curbside recycling program for solid waste disposal, which uses the three can automated collection system of "trash," "co-mingled recyclable materials" and "yard waste." All commercial "bulk collection" from multi-unit residential and commercial premises collected in three-yard bins is processed at the Regional Material Recovery Facility in Anaheim for landfill diversion. The City also operates a regional Recycling Market Development Zone (RMDZ) located in The Canyon. The center, designated by the Integrated Waste Management Board, provides assistance, including information and low interest loans, to companies that use recycled goods to manufacture finished products. The center serves 70 regional cities and over 700,000 customers.

5.11.3.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

U-6 Would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.

U-7 Would not comply with Federal, State, and local statutes and regulations related to solid waste.

5.11.3.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in parentheses after the impact statement.

IMPACT 5.11-3: IMPLEMENTATION OF THE PROPOSED PROJECT WILL GENERATE ADDITIONAL SOLID WASTE WHICH WILL FURTHER IMPACT COUNTY LANDFILLS. (THRESHOLDS U-6 AND U-7)

Impact Analysis: Development of the Proposed Project including 9,500 units, 3,265,000 square feet of office uses, and 2,254,400 square feet of commercial uses would increase the service demand on solid waste disposal beyond existing conditions and further impact the Olinda Alpha landfill and the City's solid waste reduction and diversion programs. The estimated project site population is 14,250 (based on the City's generation factor of 1.5 persons per unit within The Platinum Triangle), and the average solid waste generated per person in Orange County is approximately 9.8 pounds per day. Therefore, total waste generation from the Proposed Project site is estimated to be approximately 139,650 pounds per day or 69.8 tons per day. The estimated 69.8 tons of project waste requiring disposal daily represents approximately 1.0 percent of the current total daily Olinda Alpha Landfill disposal amount. This amount would increase the total daily inflow to Olinda Alpha landfill to approximately 7,069, which is within its 8,000 permitted daily limit. No significant impacts to Olinda Alpha or the IWMD's other landfills are therefore expected to result from this project provided that the mitigation measures listed below are incorporated into the Proposed Project.

The proposed residential uses are expected to generate the typical range of recyclable and nonrecyclable waste that other such uses create, including greenwaste (e.g., lawn and tree trimmings), cardboard, paper, glass, plastic, aluminum cans, diapers, food, and household hazardous waste (e.g., paint, motor oil, anti-freeze, batteries), etc.

The California Integrated Waste Management Board requires that all counties have an approved Countywide Integrated Waste Management Plan (CIWMP). To be approved, the CIWMP must demonstrate sufficient solid waste disposal capacity for at least 15 years, or identify additional available capacity outside of the county's jurisdiction. Orange County's CIWMP, approved in 1996, contains future solid waste disposal demand based

on the County population projections previously adopted by the Board of Supervisors. The Orange County landfill system has capacity in excess of 15 years. As such, it may be assumed that adequate capacity for the Proposed Project is available for the foreseeable future. Furthermore, the City of Anaheim has actively pursued programs to comply with Federal, State, and local regulations related to solid waste and facilities to minimize impacts from project generated solid waste.

5.11.3.4 Cumulative Impacts

According to IWMD, the daily tonnage capacity limits at FRB are not expected to be exceeded by the daily solid waste disposal requirements of the Central Region wasteshed for the foreseeable future. Currently, FRB is accepting additional waste from outside Orange County. Under these circumstances, should the cumulative effect of development in the Central Region wasteshed cause the daily tonnage ceiling to be exceeded, the waste being imported will be reduced by an amount sufficient to stay within tonnage limits.

The California Integrated Waste Management Board requires that all counties have an approved Countywide Integrated Waste Management Plan (CIWMP). To be approved, the CIWMP must demonstrate sufficient solid waste disposal capacity for at least 15 years, or identify additional available capacity outside the County's jurisdiction. Orange County's CIWMP, approved in 1995, estimates future solid waste disposal demand based on countywide population projections adopted by the Board of Supervisors. IWMD's database estimates that the Orange County landfill system has capacity in excess of 30 years; therefore, no significant cumulative solid waste impacts are anticipated. Continuation of local government efforts required under AB 939 to divert wastes from the County's landfills will also reduce the magnitude of cumulative impacts. This project's solid waste generation is included in the IWMD estimates of long-term, countywide solid waste generation, based on the Anaheim General Plan land use designations for the Project Area. Since this project is consistent with those designations, this project's portion of the long-term, cumulative solid waste stream countywide would not be significant from a statistical standpoint. However, if future development within The Platinum Triangle does not include measures to reduce the amount of waste requiring landfill disposal, the project's contribution to cumulative solid wastes would be considered significant.

5.11.3.5 Existing Regulations and Standard Conditions

- AB 939, known as the Integrated Waste Management Act, was passed because of the increase in waste stream and the decrease in landfill capacity. As a result, the current California Integrated Waste Management Board (CIWMB) was established. A disposal reporting system with CIWMB oversight was established, and facility and program planning was required. AB 939 mandates a reduction of waste being disposed: jurisdictions were required to meet diversion goals of 25 percent by 1995 and 50 percent by the year 2000. AB 939 also established an integrated framework for program implementation, solid waste planning, and solid waste facility and landfill compliance.

- This hierarchy established integrated waste management priorities that will ultimately lead to smaller quantities of solid waste disposed according to sound environmental principles. It is to guide the preparation of source reduction and recycling elements (SRREs) by every California county and incorporated city. AB 939 requires that each county and city prepare an SRRE which shows how they will meet solid waste diversion goals of 25 percent by the year 1995 and 50 percent by the year 2000 and every year after. The detailed planning requirements for the SRRE were promulgated through regulations adopted by the California Integrated Waste Management Board (CIWMB) in the spring of 1991.

5.11.3.6 Level of Significance Before Mitigation

Upon implementation of project design features, regulatory requirements, and standard conditions of approval, the impact to solid waste facilities (Impact 5.11-3) would be **potentially significant.**

5.11.3.7 Mitigation Measures

Applicable Measures from MMP No. 106

The following mitigation measures were included in Mitigation Monitoring Program No. 106 for The Platinum Triangle, and were previously adopted as part of the Stadium Area Master Land Use Plan EIR and the General Plan and Zoning Code Update EIR No. 330. Some of these measures are being revised as part of this Subsequent EIR. Additions are shown in **bold** and deletions are indicated in strikeout format.

5.11-8 The property owner/developer shall submit project plans to the Street and Sanitation Division of the Public Works Department for review and approval to ensure that the plans comply with AB939, and the Solid Waste Reduction Act of 1989, and the County of Orange and City of Anaheim Integrated Waste Management Plans as administered by the City of Anaheim. Implementation of said plan shall commence upon occupancy and shall remain in full effect as required by the Street and Sanitation Division and may include, as its discretion, the following plan components:

- Detailing the locations and design of on-site recycling facilities.
- Providing on-site recycling receptacles to encourage recycling.
- Participating in the City of Anaheim's "Recycle Anaheim" program or other substitute program as may be developed by the City.
- ~~Facilitating paper recycling by providing chutes or convenient locations for sorting and recycling bins.~~ [Note: Recyclables are separated at the waste hauler's material recovery facility. As a result, this mitigation measure is no longer necessary.]
- Facilitating cardboard recycling (especially in retail area) by providing adequate space and centralized locations for collection and bailing.
- ~~Facilitating glass recycling (especially from restaurants) by providing adequate space for sorting and storing.~~ [Note: Recyclables are separated at the waste hauler's material recovery facility. As a result, this mitigation measure is no longer necessary.]
- Providing trash compactors for nonrecyclable materials whenever feasible to reduce the total volume of solid waste and number of trips required for collection
- Providing on-site recycling receptacles accessible to the public to encourage recycling for all businesses, employees, and patrons where feasible.
- Prohibiting curbside pick-up.
- Ensuring hazardous materials disposal complies with Federal, State, and city regulations.

5.11-9 The following practices shall be implemented, as feasible, by the property owner/developer:

- Usage of recycled paper products for stationery, letterhead, and packaging.
- Recovery of materials, such as aluminum and cardboard.
- Collection of office paper for recycling.
- ~~Collection of polystyrene (foam) cups for recycling.~~ [Note: Recyclables are separated at the waste hauler's material recovery facility. As a result, this mitigation measure is no longer necessary.]
- Collection of glass, plastics, kitchen grease, laser printer toner cartridges, oil, batteries and scrap metal for recycling or recovery.

5.11-10 The property owner/developer shall submit a Demolition and Import/Export Plans, if determined to be necessary by the Public Works Department, Traffic Engineering Division and /or Street and Sanitation Division. The plans shall include identification of off-site locations for material export from the project and options for disposal of excess material. These options may include recycling of materials on-site, sale to a broker or contractor, sale to a project in the vicinity or transport to an environmentally cleared landfill, with attempts made to move it within Orange County. The property owner/developer shall offer recyclable building materials, such as asphalt or concrete for sale or removal by private firms or public agencies for use in construction of other projects, if all cannot be reused on the project site.

Additional Mitigation

No additional mitigation measures are required.

5.11.3.8 Level of Significance After Mitigation

The mitigation measures identified above would reduce potential impacts associated with solid waste facilities to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to solid waste services have been identified.

5.11.4 Electricity

5.11.4.1 Environmental Setting

The Anaheim Public Utilities Department's Electrical Division currently provides electricity to Anaheim's citizens and business industry. The distribution system consists of approximately 1,500 circuit miles of transmission and distribution lines, over 500 miles of which are underground. In order to facilitate the safe and efficient transfer of electricity to residences and businesses, 10 distribution substations are located throughout the City.

Anaheim Public Utilities provides its current customer base with more than 577,000 kilowatts (kW) and 2.7 billion kilowatt-hours annually. Anaheim Public Utilities supplied 3,597,244 Megawatt-hours (MWh) in 2002. Of this amount, 2,913,650 MWh were generated by Anaheim-controlled resources and 683,594 MWh were purchased from outside sources.

Anaheim obtains its electric supply from its resources located in or near Anaheim and across the western United States. To round out its electric supply, the City of Anaheim participates in seasonal power exchanges as well as additional market purchases where necessary.

5.11.4.2 Threshold of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

U-8 Result in a need for new systems or supplies, or substantial alterations related to electricity.

5.11.4.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in parentheses after the impact statement.

IMPACT 5.11-4: UPGRADES TO THE EXISTING FACILITIES WILL BE REQUIRED TO ACCOMMODATE PROJECT-GENERATED UTILITY DEMANDS. (THRESHOLD U-8)

Impact Analysis: Development pursuant to the Master Land Use Plan will result in additional residential, and commercial/office development in the Project Area and will increase the electrical load on existing facilities. The electric utility will not be able to provide service to the new projects given the current level of facilities and supply unless the facilities are upgraded to meet the increased demand of the new projects. The improvements will be a capacity increase in the electrical transformer and low voltage conductors serving the North Net Fire Training Center, and an increase in capacity of the high voltage electrical conductors connected to the transformer. Additional improvements may be required pending more project specific data. This same condition applies for the increased number of commercial space within The Platinum Triangle.

More specifically, consumption factors for the Project Area are estimated to be 541,695 megawatt hours for residential use and 612,778 megawatt hours for commercial/office use. The Anaheim electric utilities service does not tabulate consumptive factors for recreational use. Furthermore, they are unable to determine kWh consumption of these specific residential or commercial units without additional information.

New facilities required to serve the North Net Fire Training Center will include one or more padmounted transformers located on the site and reconfiguring the three-phase high voltage circuit, to include but not limited to, increasing the conductor size and locating the conductors underground. This same condition applies for the increased number of commercial units within The Platinum Triangle.

The City of Anaheim will provide service to the entire Platinum Triangle. The impact will include, but may not be limited to, increasing conductor sizes, locating the conductors underground, installing new high and low voltage conductors and installing new voltage transformation facilities.[6] However, these impacts are not considered significant and are within the expansion capabilities of the existing service due to existing regulations, standard conditions and mitigation measures in place.

5.11.4.4 Cumulative Impacts

The City of Anaheim Public Utilities Department has indicated that electrical power will be available to new developments within the Project Area. However, since load data for the new developments are not available

[6] Response to Electricity Questionnaire by the City of Anaheim, Electrical Utility dated January 21, 2005.

it is infeasible to calculate the increase in consumption of the cumulative developments. The magnitude of the projects will require improvements to local electrical facilities. These improvements will be undertaken on an as needed basis, therefore, cumulative impacts to electrical service within the City's service area is not anticipated. Electrical power will be available to the Project Area without a reduction in service to existing customers. Furthermore, sufficient measures are in place to reduce any cumulative impacts to a level that is less than significant.

5.11.4.5 Existing Regulations and Standard Conditions

- Future projects within The Platinum Triangle Mixed-Use Area shall be required to pay an Electric Utilities Undergrounding Fee in accordance with the Standardized Development Agreement for The Platinum Triangle.

5.11.4.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the impact to electricity service (Impact 5.11-4) would be **potentially significant.**

5.11.4.7 Mitigation Measures

Applicable Measures from MMP No. 106

The following mitigation measures were included in Mitigation Monitoring Program No. 106 for The Platinum Triangle, and were previously adopted as part of the Stadium Area Master Land Use Plan EIR and the General Plan and Zoning Code Update EIR No. 330.

5.11-11 The property owner/developer shall submit plans showing that each structure will comply with the State Energy Efficiency Standards for Nonresidential Buildings (Title 24, Part 6, Article 2, California Code of Regulations) and will consult with the City of Anaheim Public Utilities Resource Efficiency Division in order to review above Title 24 measures prior to each final Building and Zoning inspection to incorporate into the project design including energy efficient designs. This consultation shall take place during project design to incorporate into the project design energy efficiency and allow potential systems alternatives such as thermal energy storage air-conditioning and building envelope options.

5.11-12 In order to conserve energy, the property owner/developer shall implement energy-saving practices in compliance with Title 10, which may include the following:

- High-efficiency air-conditioning with EMS (computer) control.
- Variable Air Volume (VAV) air distribution.
- Outside air (100 percent) economizer cycle.
- Staged compressors or variable speed drives to flow varying thermal loads.
- Isolated HVAC zone control by floors/separable activity areas.
- Specification of premium-efficiency electric motors (i.e., compressor motors, air-handling units, and fan-coil units).

- Use of occupancy sensors in appropriate spaces.
- Use of compact fluorescent lamps in place of incandescent lamps.
- Use of T-8 lamps and electronic ballasts where applications of standard fluorescent fixtures are identified.
- Use of metal-halide or high-pressure sodium (high intensity discharge) lamps for outdoor lighting and parking lots.
- Consideration of thermal energy storage air conditioning for hotel buildings, meeting facilities, theaters, or other intermittent-use spaces or facilities that may require air-conditioning during summer, day-peak periods.
- Consideration for participation in Resource Efficiency's Programs such as:
    - o New Construction Design Review, in which the City cost-shares engineering fees for design of energy efficient buildings and systems.
    - o Energy Sale for New Construction – Cash incentives ($150 to $400 per kW reduction in load) for efficiency that exceeds Title 24 requirements.
    - o Thermal Energy Storage Feasibility Study – Cost sharing of up to $5,000 for the feasibility study of TES applied to new facilities.

5.11-13 For any buildings requiring a change in electrical service, the property owner/developer shall install an underground electrical service from the Public Utilities Distribution System. The Underground Service will be installed in accordance with the Electric Rules, Rates, Regulations and Electrical Specifications for Underground Systems. Electrical Service Fees and other applicable fees will be assessed in accordance with the Electric Rules, Rates, Regulations and Electrical Specifications for Underground Systems.

Additional Mitigation

No additional mitigation measures are required.

5.11.4.8 Level of Significance After Mitigation

The mitigation measures identified above would reduce potential impacts associated with electricity to a level that is less than significant.

5.11.5 Natural Gas

5.11.5.1 Environmental Setting

Southern California Gas Company (SCG) provides gas service in the City of Anaheim and has facilities throughout the City. The availability of natural gas service is based upon present conditions of gas supply and regulatory policies. As a public utility, the Gas Company is under the jurisdiction of Public Utilities Commission and Federal regulatory agencies. Should these agencies take any action that affects gas supply, or the conditions under which service is available, gas service will be provided in accordance with revised conditions. The Gas Company has expressed that it has facilities in the area of the Proposed Project

and that gas services to the project could be provided from an existing gas main located in various locations in the City.

5.11.5.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

U-9 Result in a need for new systems or supplies, or substantial alterations related to natural gas.

5.11.5.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in parentheses after the impact statement.

IMPACT 5.11-5: FUTURE DEVELOPMENT OF THE PROJECT AREA WOULD RESULT IN AN INCREASED DEMAND FOR NATURAL GAS SERVICE. (THRESHOLD U-9)

Impact Analysis: Future development of the Project Area would result in an increased demand for natural gas service. This demand would be associated with the proposed land use changes and increase in residential, commercial and office development. Gas service will be added to the existing system by SC G as necessary to meet the requirements of individual development projects within the Project Area. SCG has indicated that it will be able to supply the area with natural gas without impacting existing service. There will be no significant impacts from the project to natural gas service.

5.11.5.4 Cumulative Impacts

The total demand generated by the Project Area does not represent a significant increase to the existing SCG system. The related projects are not concentrated in one area and SCG can meet the needs of the related projects without adverse impacts to surrounding uses. The total cumulative demand, including growth in the surrounding areas, does not represent a significant impact to SCG service because of the substantial amount of reserves available to SCG.

5.11.5.5 Existing Regulations and Standard Conditions

There are no existing regulations or standard conditions relating to the provision of natural gas which are applicable to the Proposed Project.

5.11.5.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the impact to natural gas service would be less than significant. However, the following mitigation measure will ensure that each project complies with Title 24 of the California Administrative Code.

5.11.5.7 Mitigation Measures

Applicable Measure from MMP No. 106

The following mitigation measure was included in Mitigation Monitoring Program No. 106 for The Platinum Triangle, and was previously adopted as part of the Stadium Area Master Land Use Plan EIR and the General Plan and Zoning Code Update EIR No. 330.

5.11-14 The property owner/developer shall submit plans for review and approval which shall ensure that buildings are in conformance with the State Energy Conservation Standards for Nonresidential buildings (Title 24, Part 6, Article 2, California Administrative Code).

Additional Mitigation

No additional mitigation measures are required.

5.11.5.8 Level of Significance After Mitigation

No significant impacts have been identified; however, all future projects will be required to comply with Title 24 of the California Administrative Code.

5.11.6 Telephone

5.11.6.1 Environmental Setting

Telephone service is provided to the Project Area by SBC. Facilities are located throughout the City.

5.11.6.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

U-10 Result in a need for new systems or supplies, or substantial alterations related to telephone service.

Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in parentheses after the impact statement.

IMPACT 5.11-6: UPGRADES TO EXISTING TELEPHONE SERVICE FACILITIES MAY BE NECESSARY TO ADEQUATELY SERVE THE PROPOSED PROJECT. (THRESHOLD U-10)

Impact Analysis: Development of individual projects within the Project Area will increase the demand on the telephone service system; however, telephone service already exists in the Project Area and telephone facilities can be upgraded without any significant impact on the environment.

5.11.6.3 Cumulative Impacts

The existing uses in the Project Area currently receive telephone service. Future development of the Project Area would result in an increased demand for telephone services. This demand would be associated with the proposed land use changes and increase in residential and commercial/office development; however, the infrastructure capacity for telephone service is expandable by the provider to meet the demands of future development in the area. No cumulative impacts to telephone service are anticipated due to development of the Project Area.

5.11.6.4 Existing Regulations and Standard Conditions

There are no existing regulations or standard conditions relating to the provision of telephone service which are applicable to the Proposed Project.

5.11.6.5 Level of Significance Before Mitigation

Telephone service facilities upgrade can be completed without any significant impact on the environment and Impact 5.11-6 would be less than significant.

5.11.6.6 Mitigation Measures

No mitigation measures are required.

5.11.6.7 Level of Significance After Mitigation

No significant unavoidable adverse impacts relating to telephone services have been identified.

5.11.7 Cable

5.11.7.1 Environmental Setting

Adelphia provides cable television service to the City of Anaheim. The infrastructure capacity for cable television is also expected to expand with new development. Public channels available in the City include CBS, NBC, WB, ABC, FOX, UPN, PBS, TBN and an Independent Channel operated by KDOC in Anaheim.

5.11.7.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

U-11 Result in a need for new systems or supplies, or substantial alterations related to television service/reception.

5.11.7.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in parentheses after the impact statement.

IMPACT 5.11-7: UPGRADES TO EXISTING CABLE FACILITIES MAY BE REQUIRED TO SERVE THE PROPOSED PROJECT. (THRESHOLD U-11)

Impact Analysis: Future development in the Project Area would result in increased demand for television reception and cable service. During construction of street improvements, existing cable television facilities would need to be relocated underground or otherwise redesigned in order to accommodate new accounts. Such increase in demand and construction activity may create temporary disruption of television service in the areas. However, the cable service provider has indicated they can serve the Project Area without any impact to existing service.

5.11.7.4 Cumulative Impacts

Implementation of related projects in the area and eventual build-out may create temporary disruption of television service at area residences and businesses. However, projects with multi-story structures will be required to mitigate any impacts on television reception created by these structures. No cumulative impacts are expected to cable or television service in the Project Area.

5.11.7.5 Existing Regulations and Standard Conditions

There are no existing regulations or standard conditions relating to the provision of cable service which are applicable to the Proposed Project.

5.11.7.6 Level of Significance Before Mitigation

Without mitigation, Impact 5.11-7 is considered less than significant.

5.11.7.7 Mitigation Measures

Applicable Measure from MMP No. 106

The following mitigation measure was included in Mitigation Monitoring Program No. 106 for The Platinum Triangle, and was previously adopted as part of the Stadium Area Master Land Use Plan EIR and the General Plan and Zoning Code Update EIR No. 330. Additions are shown in **bold** and deletions are indicated in strikeout format.

~~5.11-13 A study of area television reception shall be undertaken by the property owner/developer and submitted to the City Engineer for review and approval. If the City of Anaheim determines that the proposed project creates a significant impact on broadcast television reception at local residences and other existing hotels/restaurants or other businesses, a signal booster or relay system shall be installed by the property owner/developer immediately on the roof of the tallest project building to restore television reception to its original condition.~~

Additional Mitigation

No additional mitigation measures are required.

5.11.7.8 Level of Significance After Mitigation

The mitigation measure identified above would reduce potential impacts associated with television reception to a level that is less than significant.