4.14 UTILITIES/SERVICE SYSTEMS

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

Many related services and utilities as analyzed in the EIR are provided for on a city-wide or even regional basis, with further analysis at the Community Plan level where relevant. Impacts are analyzed at the appropriate geographic level to determine how each service and utility might be affected; impacts that might extend citywide are discussed as such (see for example the discussion of Water impacts that assesses project impacts as compared to citywide water supply). The impact analysis does not necessarily stop at the boundary of the planning area. Each department responsible for services and utilities prepares long-term plans to provide those services and utilities based on projections prepared by SCAG, the Department of City Planning, and other departmental forecasts.

Water Supply, Storage, and Distribution

This section describes the current status of water supply services and facilities in the City of Los Angeles, including a discussion of local water conservation initiatives and the ability of the City's water supply services to meet the current needs of the San Pedro Community Plan Area (CPA), and analyzes the potential physical environmental effects related to water supply impacts created by construction of new or additional facilities associated with implementation of the proposed plan.

Data for this section were taken from a variety of sources. Full reference-list entries for all cited materials are provided in Section 4.14.5 (References).

4.14.1 Environmental Setting

LADWP Water Resources

The LADWP was established in 1902 to deliver water to the City of Los Angeles. Under the provisions of the City Charter, the LADWP has complete charge and control of its water distribution inside the City of Los Angeles. The Water Operating Division of the LADWP, under the authority extended by the Board of Water and Power Commissioners, owns, operates and maintains all water facilities within the City and is responsible for ensuring that water demand in the City is met and that state and federal water quality standards are achieved. The San Pedro CPA is located within the City of Los Angeles, and, as such, the LADWP is the water provider to the CPA. For the fiscal year of 2008/09, City water supplies were derived from the following sources: (1) the Los Angeles Aqueduct (LAA), approximately 18 percent; (2) groundwater, approximately 10 percent; (3) purchases from the Metropolitan Water

District of Southern California (MWD), approximately 71 percent; and (4) recycled water (for industrial and irrigation purposes), approximately 1 percent.[140] The amount of water obtained from these sources varies from year to year, and is primarily dependent on weather conditions and demand. In addition, reclamation of wastewater is used for irrigation purposes.

Water storage is essential for LADWP to supply water during high demand conditions and for firefighting and emergencies. The City water system includes 114 tanks and reservoirs ranging in size from 10,000 to 60 billion gallons with a total capacity of 109 billion gallons. Water is distributed through a network of 7,200 miles of water mains ranging from 4 inches to 120 inches in diameter. Because of the size and range in elevation, the system is divided into 102 pressure zones, with almost 90 booster pumping stations to provide water service at higher elevations.[141]

The City is also entitled to extract a total of 107,258 acre-feet per year (afy) from the San Fernando, West Coast, Central, Sylmar, and Eagle Rock Basin.[142] The San Fernando Basin holds a water reserve totaling 255,000 acre-feet (af) (83.1 billion gallons) as of October 1999, and LADWP has the right to pump water from this reserve in the case of temporary interruption of water imports or in case of a drought that reduces production from the Los Angeles Aqueduct.

The primary water treatment plant serving the general Los Angeles area, including the CPA, is the Los Angeles Aqueduct Filtration Plant (LAAFP). The LAAFP has a design capacity of 600 million gallons per day (mgd).[143] The average plant flow is 450 mgd in non-summer months, and 550 mgd during summer months. The average over the year is 475 mgd. The remaining capacity of the LAAFP is, therefore, approximately 125 mgd or 21 percent of its total capacity. According to the LADWP, there are no plans for future water treatment facility expansion.

MWD Water Resources

MWD is the largest water wholesaler for domestic and municipal uses in Southern California. As one of 26-member agencies, LADWP purchases water from MWD to supplement LADWP supplies from local groundwater and the LAA. MWD imports its water supplies from Northern California through the State Water Project's (SWP) California Aqueduct, operated by the California Department of Water Resources (DWR), and from the Colorado River through MWD's own Colorado River Aqueduct. Each of these sources is described below. LADWP will continue to rely on MWD to meet its current and future supplemental water needs.

All 26-member agencies have preferential rights to purchase water from MWD. Pursuant to Section 135 of the MWD Act:

> Each member public agency shall have a preferential right to purchase from the district for distribution by such agency, or any public utility therein empowered by such agency for the

[140] Los Angeles Department of Water and Power, Quick Facts and Figures, http://www.ladwp.com/ladwp/cms/ladwp000509.jsp (accessed January 6, 2011).
[141] City of Los Angeles, *L.A. CEQA Thresholds Guide* (2006).
[142] Los Angeles Department of Water and Water. 2005 Urban Water Management Plan for the Los Angeles Department of Water and Power, Exhibit 3D (Annual Groundwater Entitlements).
[143] Charles C. Holloway, written correspondence with Manager of Environmental Assessment and Planning, Los Angeles Department of Water and Power (June 23, 2009).

> purposes, for domestic and municipal uses within the agency a portion of the water served by the district which shall, from time to time, bear the same ratio to all of the water supply of the district as the total accumulation of amounts paid by such agency to the district on tax assessments and otherwise, excepting purchase of water, toward the capital cost and operating expense of the district's works shall bear to the total payments received by the district on account of tax assessments and otherwise, excepting purchase of water, toward such capital cost and operating expense.

This is known as a preferential right. Under the preferential rights system, Los Angeles is entitled to approximately 22 percent of MWD's water. Even during shortages, MWD expects that it will be able to meet its member agencies' long-term needs through a combination of actions, including water transfer programs, outdoor conservation measures, and development of additional local resources, such as recycling, brackish water desalination, and seawater desalination.

MWD and its member agencies have established the cyclic storage program to increase storage in groundwater basins within the service area. Through the carryover storage program, as amended by the Monterey Amendment, MWD can place a maximum of 200,000 af per year of allocated State Water Project (SWP) supplies in SWP surface reservoirs. The program also allows for carryover storage in non-project facilities, including surface reservoirs and groundwater basins. In addition to the storage of Colorado River and SWP supplies outside the region, Metropolitan has established a number of programs for storing supplies within the region. Metropolitan owns and operates three main surface reservoirs, Lake Mathews and Lake Skinner, which have a combined storage of about 226,000 af, and the Eastside Reservoir, with a total capacity of 800,000 af, with approximately 400,000 af of operational drought and seasonal storage and 400,000 af of emergency storage. MWD has adopted a series of official reports on the state of its water supplies. As described below, MWD has consistently stated that its water supplies are fully reliable to meet the demands of its customers, in all hydrologic conditions through at least 2030.

Colorado River

In November 2010, MWD published its updated Regional Urban Water Management Plan (RUWMP). According to MWD, it continues to pursue Colorado River Aqueduct (CRA) supplies of 1.2 million acre-feet (Maf) per year.[144] However, constraints have developed over the years that restrict MWD's access to Colorado River supplies. After meeting its exchange obligations, MWD expects their maximum supply capability from the CRA to be 954 Taf per year for multiple dry years, single dry year, and average year in 2030.[145] This includes utilizing a number of programs to help achieve MWD's regional long-term development targets for the CRA, although more agreements will be necessary to hit MWD's target of 1.2 Maf per year.

[144] Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).
[145] Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).

State Water Project

MWD possesses a contract with California Department of Water Resources (DWR) that entitles it to water from the State Water Project (SWP).[146] According to the contract, MWD is entitled to receive 1,911 Taf per year from the SWP.[147] This supply is diverted from the Feather River at Lake Oroville, released and conveyed through the Sacramento-San Joaquin River Delta (Delta) and rediverted at the Harvey O. Banks Delta Pumping Plant for conveyance through the California Aqueduct to Southern California and MWD. MWD described and analyzed the reliability of its SWP supplies in the 2010 RUWMP.[148] Under recent criteria, based on the deteriorating reliability of SWP deliveries, Department of Water Resources (DWR) projects that in critically dry years, SWP delivery would be 418 Taf, or about 22 percent of MWD's SWP contractual amounts. Consequently, MWD's key concern is the continuing deterioration of water supply reliability. MWD estimated that in 2030, it will have 469 Taf available in multiple dry years, 107 Taf in a single dry year, and 1,026 Taf in an average year.[149]

Over the years, SWP supplies have been challenged through environmental litigation concerning the Delta. In addition, MWD has acknowledged that conveyance of water through the Delta can present challenges for SWP supplies due to water quality and environmental issues that can affect pumping operations. Risks to this supply also include potential levee failure. Actions being taken by DWR and MWD to avoid or reduce the impacts of these risks are described below.

Future Water Resources

MWD Integrated Water Resources Plan

MWD first adopted its Integrated Water Resources Plan (IRP) in 1996. The most updated IRP, which was adopted in 2010, builds on the successes of existing conservation programs and recycled water projects, such as plumbing code revisions and direct incentives. The 2010 IRP also focuses on California's new requirement to lower residential per-capita water use 20 percent by the year 2020. This "20 x 2020" plan gives local communities flexibility to meet the target while accounting for previous conservation and recycling efforts.[150] The 2010 IRP notes that future water supply reliability depends not only upon actions by MWD to secure reliable imported supplies, but also further development of local projects by local agencies such as LADWP (refer to discussion of DWP's Water Supply Action Plan, "Securing L.A.'s Water Supply," below.)

On October 12, 2010, the MWD board of directors updated the district's IRP, providing a roadmap for maintaining regional water supply reliability over the next 25 years. The report concludes that "the

[146] See Contract between the California Department of Water Resources and the Metropolitan Water District of Southern California for a Water Supply (November 4, 1960), as amended through Amendment No. 28, http://www.swpao.water.ca.gov/wsc/pdfs/MWDSC_O_C.pdf.
[147] Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).
[148] Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).
[149] Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).
[150] Metropolitan Water District of Southern California, *Integrated Resources Plan (IRP) Update* (January 3, 2011), http://www.mwdh2o.com/mwdh2o/pages/yourwater/irp/ (accessed January 24, 2011).

options presented in this IRP Update are projected to meet the future water supply needs of Southern California."[151]

MWD supported this conclusion by providing detailed updates for each of its resource categories, restating dry-year IRP targets and examining current considerations, changed conditions, implementation strategies and identified programs, implementation challenges and cost information. A brief summary of each of MWD's water resource development categories (other than the Colorado River and SWP supplies, which were discussed previously) is provided below:

- **Conservation:** In 2010, MWD programs conserved approximately 886,000 af, which was an increase of approximately 121,000 af over 2005. MWD's 2015 target for conservation savings is 936,000 af.[152]
- **Local Resources—Recycling, Groundwater Recovery, and Seawater Desalination:** MWD continues to pursue a 2025 target for combined water recycling, groundwater recovery, and seawater desalination elements totaling 500 Taf per year of committed development and 250 Taf per year of planning buffer. In 2009 MWD funded 223 Taf of water production from recycling and groundwater recovery. MWD has entered into four Seawater Desalination Program (DSP) agreements, while a fifth potential project is currently on hold.[153]
- **Central Valley Storage and Transfer Programs:** MWD continues to pursue transfers with Central Valley parties and has worked to improve existing storage programs with existing SWP storage partners. In 2003, 2005, 2008, and 2009, MWD was able to secure water transfer supplies as a resource to fill anticipated supply shortfalls needed to meet service area demands.[154]
- **In-Region Groundwater Storage:** In 2007, MWD prepared the Groundwater Assessment Study Report in collaboration with its member agencies. The report finds that there is substantial capacity for groundwater storage, but significant challenges must be overcome in order to implement additional storage programs. In 2010, MWD entered into an agreement with the Los Angeles County Sanitation District (LACSD) to conduct a feasibility study for developing a regional recharge project using recycled water. Despite a regional groundwater storage capacity of 421.9 Taf, the account balance as of December 31, 2009, was 84.6 Taf.[155]

MWD has engaged in significant water supply projection and planning efforts. Those efforts have included the water demands of the DWP service area in their projections. In its 2010 RUWMP, MWD has consistently found that its existing water supplies, when managed according to its water resource plans, such as the WSDM and IRP, are and will be 100 percent reliable through 2035.[156] Although water supply conditions are always subject to uncertainties, MWD has maintained its supply reliability in the face of such uncertainties in the past, and is actively managing its supplies to ensure the same 100 percent reliability for the future.

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[151] Metropolitan Water District of Southern California, *Integrated Water Resources Plan 2010 Update*. Report No. 1373 (October 2010).
[152] Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).
[153] Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).
[154] Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).
[155] Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).
[156] Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).

City of Los Angeles Water Supply Action Plan

In response to potential water supply uncertainties, including those impacting the MWD, the Mayor, and DWP released a Water Supply Action Plan (Action Plan) on May 17, 2008. The plan, entitled *Securing L.A.'s Water Supply*, serves as a blueprint for creating sustainable sources of water for the future to reduce dependence on imported supplies.

The premise of the Action Plan is that the City will meet all new demand for water due to projected population growth through a combination of water conservation and water recycling. In total, the City will conserve or recycle 32.6 billion gallons of water—enough to fill one foot of water across the entire San Fernando Valley, and enough to supply water to 200,000 homes for 1 year.[157] By the year 2019, half of all new demand will be filled by a six-fold increase in recycled water supplies and by 2030 the other half will be met through ramped-up conservation efforts.[158]

The Action Plan also specifically addresses current and future SWP supply shortages. DWP estimates that the Federal Court decision on Delta smelt will limit MWD exports of their anticipated SWP supply by up to 30 percent.[159] The Action Plan concludes, however, that MWD's actions in response to this threat (as described above) will ensure continued reliability of its water deliveries. The Action Plan further states that "despite concerns about ongoing water shortages and higher costs, MWD has upheld its pledge to plan for emergencies and natural disasters throughout this region. The agency has approximately 1.7 million af in surface and groundwater storage accounts—including Diamond Valley Lake near Hemet—and 600,000 af of storage reserved for emergencies."[160] In total, this reserve of water supplies buffers the severity of a potential shortage.[161] Furthermore, by focusing on demand reduction, implementation of the Action Plan will ensure that long-term dependence on MWD supplies will not be exacerbated by potential future shortages. Action Plan short- and long-term conservation strategies are shown in Table 4.14-1 (DWP Action Plan Short- and Long-Term Conservation Strategies).

4.14.2 Regulatory Framework

Federal

Clean Water Act

The federal Clean Water Act (CWA) establishes regulatory requirements for potable water supplies including raw and treated water quality criteria. The City of Los Angeles is required to monitor water quality and conform to the regulatory requirements of the CWA.

[157] Los Angeles Department of Water and Power, *Securing L.A.'s Water Supply* (May 2008), p. 1.
[158] Los Angeles Department of Water and Power, *Securing L.A.'s Water Supply* (May 2008), p. 1.
[159] Los Angeles Department of Water and Power, *Securing L.A.'s Water Supply* (May 2008), p. 8.
[160] Los Angeles Department of Water and Power, *Securing L.A.'s Water Supply* (May 2008), p. 8.
[161] Los Angeles Department of Water and Power, *Securing L.A.'s Water Supply* (May 2008), p. 8.

Table 4.14-1 DWP Action Plan Short- and Long-Term Conservation Strategies

Short-Term Conservation Strategies
Enforcing prohibited uses of water. The prohibited uses of water are intended to eliminate waste and increase awareness of the need to conserve water. While in effect at all times, the prohibited uses have not been actively enforced since the early 1990s. In November 2007, DWP resurrected its Drought Buster Program to heighten awareness and educate customers about the prohibited uses. Under enforcement, failure to comply would be subject to penalties, which can range from a written warning for a first violation to monetary fines and water service shutoff for continued noncompliance.
Expanding the prohibited uses of water. DWP will update and strengthen the existing Emergency Water Conservation Ordinance by expanding the prohibited uses. Possible new prohibited uses include: further restrictions on watering landscape (i.e. prohibiting watering on certain days of the week or for a limited period of time); prohibit landscape watering during rain; and prohibit washing/rinsing vehicles with a hose when the hose does not have a functioning self-closing nozzle attached or allowing the hose to run continuously (See discussion of proposed revisions to the Emergency Water Conservation Ordinance described below).
Extending outreach efforts. DWP has committed to $2.3 million for an aggressive conservation outreach and education campaign. Some activities include: step up communication with ratepayers to include bus placards, DWP vehicle placards, newspapers, radio, and television, among other types of media; outreach to Homeowner Associations and Neighborhood Councils to promote water conservation; train DWP field staff as well as field staff from Public Works, Recreation and Parks, and other appropriate City departments in identifying and reporting prohibited uses of water; and ramp up marketing of water conservation incentive and rebate programs.
Encouraging regional conservation measures. Work with MWD to encourage all water agencies in the region to adopt water conservation ordinances which include prohibited uses and enforcement.
Long-Term Conservation Strategies
Increasing water conservation through reduction of outdoor water use and new technology. The following are new and continuing water conservation programs as well as goals and benchmarks designed to measure their progress through 2030: ■ Residential Smart Sprinkler Systems: Smart sprinkler systems improve water efficiency and are already used in parks and golf courses around the City will be extended to homes throughout L.A.'s neighborhoods. > *Goal:* Install 5,250 smart sprinkler controllers per year, with a total of 63,500 by 2020. > *Water Savings:* 4,962 afy by 2030. > *Action Plan:* DWP will begin to provide smart controllers and installation services free of charge to qualifying residential customers. Program plans include the installation of 2,500 controllers in the first year of program, moving to 5,250 controllers per year on a sustained basis. The program is scheduled to launch in early 2009. ■ Conservation Rebates and Incentives: Rates and incentives can be used to increase conservation. > *Goal:* Increase participation in Water Conservation Rebate and Incentive Programs. > *Water Savings:* 48,457 afy by 2030. > *Action Plan:* DWP is continuing to expand rebates and incentives for homeowners and business owners to encourage them to purchase water-saving technology. Rebate and incentive programs include the following: o High Efficiency Clothes Washer Program. DWP increased the rebate offered for residential high efficiency clothes washers from $150 to $250. DWP will further expand the program through "Point of Purchase" rebates, offering customers an instant rebate when they buy the appliance from a Los Angeles retailer. Since the program was launched in 1998, more than 60,000 water-saving clothes washers have been installed in Los Angeles residents' homes through the program. o Commercial Rebate Program. Water conservation rebates and incentives were increased significantly in 2007 to offset the costs of replacing water-wasting toilets and urinals with high efficiency models. The current rebates offset most or all of the total replacement cost (including installation). DWP will increase program promotion to raise awareness of these significant financial incentives, resulting in increased program participation. Since this program's inception, more than 32,800 toilets have been replaced by commercial, industrial, and

Table 4.14-1 DWP Action Plan Short- and Long-Term Conservation Strategies

institutional customers, and DWP is working to implement a grant-funded Cooling Tower program for commercial customers.

- o High Efficiency Urinal Programs. Offering perhaps the greatest potential for quick implementation is the replacement of standard urinals with high efficiency urinals (0.5 gallon per flush [gpf] or less, including no-flush). In addition, recent changes in the Los Angeles Building Code now provide for the installation of completely water-free urinals.
- o Additional Water Saving Efficiency Measures and Programs. As part of the City's ongoing effort to encourage customers to adopt passive water conservation measures (i.e., measures that can help customers conserve water on a daily basis without thinking about it) in their homes and businesses, DWP will continue to distribute water-saving bathroom and kitchen faucet aerators and shower heads free-of-charge. DWP also plans to add rebates for products such as high-efficiency dishwashers and synthetic turf for residential customers to help increase their daily conservation efforts.

■ Actions by public agencies. Public agencies should have goals and actions plans for meeting them including:

- > *Goal:* Improving water efficiency at all City Department facilities. DWP provides incentive funding and technical assistance to City Departments for the installation of high efficiency urinals and smart irrigation controllers, and helps them identify other opportunities to improve water use efficiency.
- > *Water Savings:* Estimated to save at least 10 percent from existing use, totaling as much as 1,888 afy in water savings.
- > *Action Plan:* DWP will assist City Departments and other public agencies in leveraging incentive funds to retrofit their facilities. The Public Sector Conservation Incentive Program, offered through MWD in conjunction with DWP, provides up-front incentives for public agencies to purchase water-efficiency technology.

■ Enhancing conservation through review of new developments. The City should use development review to enhance conservation.

- > *Goal:* Ensure specifications for the Los Angeles Green Building program include water efficiency measures.
- > *Water Savings:* The Green Building Program can yield significant water savings through water conservation measures.
- > *Action Plan:* DWP will continue working with the City's Green Building Team to pursue desired changes in local codes and standards to promote water efficiency in new construction projects and major building renovations.

Maximizing water recycling. The City's goal is to increase the total amount of recycled water used in the City of Los Angeles six-fold by 2019—expanding from the current 1 to 6 percent of annual water demand. This will result in an estimated water savings of 50,000 afy by 2019. In order to achieve this goal, the City will take the following actions:

- ■ Develop a Recycled Water Master Plan. DWP and the Bureau of sanitation will prepare a detailed Recycled Water Master Plan that will outline the steps and costs of boosting the City's recycled water level to 6 percent of total demand for the City. The Master Plan will provide a blueprint for reaching this goal by expanding the existing recycled water pipeline system and using recycled water for groundwater replenishment.
- ■ Increase Recycled Water for Irrigation and Industrial Use. DWP's current Water Recycling Capital Budget provides funding for 21 projects that will increase recycled water deliveries from 4,500 afy to 19,350 afy by 2014, adding more than 106,300 feet of new pipe and saving potable water for nearly 31,000 households throughout the City. Potential customers in future years include several parks (Taylor Yard, Elysian, Branford, Woodley, and Balboa parks); Harbor and Scattergood Generating Stations; Hansen Dam and Van Nuys golf courses; oil refineries in the Harbor area; LAX cooling towers; schools in the Sepulveda Basin, the Los Angeles Zoo, and the Playa Vista development. Under the City's Water/Wastewater Integrated Resources Plan, 30,250 afy of treated water will continue to be used to support habitat in the Japanese Gardens, Lake Balboa, the Wildlife Lake, and the Los Angeles River.
- ■ Use Recycled Water for Groundwater Replenishment. Advanced treated recycled water can be sent to spreading basins to percolate underground and become part of the City's groundwater system for later use. This process, also termed groundwater replenishment, is a proven alternative for expanding locally produced, safe, high-quality drinking water. The process has been successfully implemented in Orange County, Australia, and Singapore, and is being considered in other U.S. and worldwide locations.
- ■ Initiate Stakeholder Planning Process. DWP will engage stakeholders from the Water/Wastewater Integrated Resources Plan (IRP) process in analyzing alternatives necessary for maximizing recycled water. These alternatives include implementing groundwater recharge with advanced treatment in the San Fernando Valley as well as expanding the purple pipe system to supply recycled water for irrigation and industrial uses.
- ■ Upgrade Tillman Wastewater Treatment Plant: Groundwater replenishment will require upgrading the Tillman Plant with state-of-the-art, advanced treatment capability similar to the Orange County Water District's recently implemented Groundwater Replenishment System, which has received widespread support. Advanced treatment would be constructed at the Tillman Plant, and the highly treated wastewater would be piped to spreading basins for groundwater recharge.

Table 4.14-1 DWP Action Plan Short- and Long-Term Conservation Strategies

Enhancing stormwater capture. The City's goal is to increase groundwater recharge by retrofitting the Big Tujunga Dam and other large-scale projects through cooperative efforts with the Los Angeles County Flood Control District and other agencies. DWP is moving forward with several stormwater capture projects with the goal of increasing long-term groundwater recharge by a minimum of 20,000 afy. The following are the large-scale projects that are expected to be completed or in construction within the next 5 years:

- Big Tujunga Dam—San Fernando Basin Groundwater Enhancement Project: On September 18, 2007, the DWP Board approved Agreement No. 47717 to provide $9 million to the Los Angeles County Flood Control District for the construction of the Big Tujunga Dam Project—an effort to seismically retrofit the dam, increase its water storage capacity, improve its reliability as a supply source, enhance flood protection measures, and green the environment. The restoration of the dam is conservatively estimated to result in the additional capture and recharge of 4,500 afy at the Hansen and Tujunga Spreading Grounds, and more in wet years. The project will make structural improvements to Big Tujunga Dam to restore its historical retention capacity of 6,000 af; currently the dam is restricted to 1,500 af of storage capacity.
  - Schedule: In construction; scheduled to be completed by December 2010.
  - Budget: $100 million of which DWP is providing $9 million.
  - Resources: Los Angeles County Flood Control District is the project manager.
  - Potential Water Savings: Capture an additional 4,500 afy of stormwater on average, up to 10,000 afy or more in extremely wet years.
- Sheldon-Arleta Project—Cesar Chavez Recreation Complex Project Phase I: On December 19, 2006, the Board of Water and Power Commissioners approved Agreement No. 47448 to provide up to $5.25 million to the City of Los Angeles Department of Public Works for the construction of the project (the total project cost is about $9 million). The project will upgrade the methane gas extraction system at the Sheldon-Arleta Landfill that is necessary to allow the full use of the adjacent Tujunga Spreading Grounds. Currently, the spreading grounds are restricted to an operating capacity of 50 cubic feet per second (cfs) or 20 percent of the full operating capacity of 250 cfs.
  - Schedule: In construction; scheduled to be completed by late 2008.
  - Budget: $9 million of which DWP is providing $5.25 million.
  - Resources: Los Angeles Department of Public Works is the project manager.
  - Potential Water Savings: Capture of an additional 6,000 to 10,000 afy of stormwater.
- Hansen Spreading Grounds Enhancement Project—DWP has entered into Agreement No. 47739 to share the costs of the construction of the Hansen Spreading Grounds Project with the District. The project will increase the capacity and efficiency of the spreading grounds by: 1) combining and deepening the existing basins, and 2) installing and building a new rubber dam, intake structure, control house, and upgrading the telemetry system. The Los Angeles County Board of Supervisors approved the agreement on March 11, 2008, and the DWP Board of Commissioners approved it on April 1, 2008.
  - Schedule: Scheduled to go into construction in summer 2008; completion expected within 18 months.
  - Budget: Up to $15 million; DWP is providing up to $7.5 million, with remaining costs covered by the LA County Flood Control District.
  - Resources: Los Angeles County Flood Control District is the project manager.
  - Potential Water Savings: Capture of an additional 1,200 to 3,000 afy of stormwater.
- Tujunga Spreading Grounds Enhancement Project—This project proposes to deepen the spreading basins, increase their storage capacity, replace the existing diversion structure with two diversion structures, and add remote automation of the operating structures.
  - Schedule: Planning and design 2008-09; construction in 2010.
  - Budget: $1.3 million for design; $24 million for construction (DWP funded).
  - Resources: DWP will be the project manager.
  - Potential Water Savings: Capture of an additional 8,000 to 12,000 afy of stormwater.
- Pacoima Spreading Grounds Enhancement Project—This project proposes to deepen the spreading basins, increase their storage capacity, replace existing diversion structure, and add remote automation of the operating structures.
  - Schedule: Planning and design 2008-09; construction in 2011.

Table 4.14-1 DWP Action Plan Short- and Long-Term Conservation Strategies

- > Budget: $1.3 million for design; $20 million for construction (DWP may provide some funding for this project).
- > Resources: Los Angeles County Flood Control District will be the project manager.
- > Potential Water Savings: Capture of an additional 1,500 to 3,000 afy of stormwater.

Accelerating clean-up of the groundwater basin. The City's goal is to clean up the contaminated San Fernando Groundwater Basin to expand groundwater storage and the ability to fully utilize the City's groundwater supplies. The result will be a reduction of imported water supply of up to 87,000 afy—DWP's annual allocation of San Fernando Valley groundwater supplies. DWP will also work to ensure that this Basin remains a consistent, stable, and reliable resource for years to come. The following actions are proposed to achieve this goal:

- Work with Regulatory Agencies and Governmental Officials: DWP will continue to encourage the EPA to develop a long-term, comprehensive solution for existing and emerging contamination issues in the Basin. In addition to the EPA, DWP will work with the Los Angeles Regional Water Quality Control Board and the California Department of Toxic Substances to find and hold polluters accountable for cleaning up the Basin.
- Groundwater System Improvement Study (GSIS): DWP will conduct a comprehensive groundwater study for the Basin. This study is a necessary step to evaluate the groundwater quality in the Basin and recommend treatment options to maximize the utility of the groundwater supply.
  - > Schedule: Contract award in mid-2008; contract term is 6 years.
  - > Budget: $10 million (DWP funded).
  - > Resources: DWP will serve as contract manager and administrator.
  - > Benefit: Will provide vital information to develop a long-term strategy to remediate groundwater contamination in the San Fernando Basin.
- Monitoring Well Drilling Contract: DWP will install up to 40 new monitoring wells throughout the Basin to provide vital water quality information necessary for the Groundwater System Improvement Study.
  - > Schedule: Construction contract award in mid-2009; contract term is 2 years.
  - > Budget: $7.5 million (DWP funded)
  - > Resources: DWP will serve as contract manager and administrator
  - > Benefit: The monitoring wells can be routinely sampled during and after the GSIS to provide vital information on groundwater contaminants and their concentration levels.
- Interim Wellhead Treatment: DWP will install interim treatment for select wellheads in the Tujunga Well Field in order to maintain groundwater pumping production. An amount of $3 million has been included in the budget for this work.

Expanding groundwater storage. DWP is investigating opportunities for increased storage of groundwater, creating a cost-effective, environmentally friendly reserve of water resources in case of extreme drought or other emergencies. Currently, the City has significant amounts of stored groundwater in the San Fernando Basin. However, as noted above, contamination restricts the ability to effectively utilize this resource. DWP is investigating the following opportunities: groundwater storage along the Los Angeles Aqueduct; a groundwater conjunctive use storage project in the LA County groundwater basins; and construction of an interconnection between the Los Angeles Aqueduct and the California Aqueduct, located where the two aqueducts intersect in the Antelope Valley. The interconnection will allow for water transfers or exchanges, and could be used to help move water to facilitate groundwater storage opportunities. The design phase of the interconnection is almost complete. DWP is waiting for a permit to build on land owned by DWR. DWP plans to begin construction in 2008.

SOURCE: Los Angeles Department of Water and Power, *Securing L.A.'s Water Supply* (May 2008).

State

Safe Drinking Water Act (1976)

California enacted its own Safe Drinking Water Act (SDWA). Department of Health Services (DHS) has been granted primary enforcement responsibility for the SDWA. Title 22 of the California Administrative Code establishes CDHS authority and stipulates drinking water quality and monitoring standards. These standards are equal to or more stringent than the Federal standards.

Title 22

The California Water Code requires the DHS to establish water reclamation criteria. In 1975, the DHS prepared Title 22 to fulfill this requirement. Title 22 regulates production and use of reclaimed water in California by establishing three categories of reclaimed water: primary effluent, which typically includes grit removal and initial sedimentation or settling tanks; adequately disinfected, oxidized effluent (secondary effluent) which typically involves aeration and additional settling basins; and adequately disinfected, oxidized, coagulated, clarified, filtered effluent (tertiary effluent) which typically involves filtration and chlorination. In addition to defining reclaimed water uses, Title 22 also defines requirements for sampling and analysis of effluent and requires specific design requirements for facilities.

Urban Water Management Planning Act

The California Urban Water Management Planning Act (California Water Code Division 6, Part 2.6 Sections 10610–10656) requires water suppliers to develop water management plans every 5 years to identify short-term and long-term water resources management measures to meet growing water demands during normal, dry, and multiple-dry years.

Water Supply Assessments

In 2001, the California State Legislature approved Senate Bill (SB) 610, which amended Section 21151.9 of the Public Resources Code and Sections 10910 et seq. of the Water Code requiring the preparation of a "water supply assessment" (WSA) for large developments (e.g., more than 500 dwelling units or nonresidential equivalent). These assessments, prepared by "public water systems" responsible for service, address whether adequate existing or projected water supplies are available to serve future development occurring under proposed plan, in addition to urban and agricultural demands and other anticipated development in the proposed plan's service area. State regulations do not specifically require the preparation of a water supply assessment for a general plan. Section 10910(c)(2) states that if the projected water demand associated with a proposed plan was accounted for in the most recently adopted urban water management plan, the public water system may incorporate the requested information from the urban water management plan into the analysis.

State Executive Order S-06-08

In a recent effort to coordinate water conservation efforts at the state level, then Governor Schwarzenegger signed Executive Order S-06-08. The Order comes in response to two straight years of

below-average rainfall and very low snowmelt runoff.[162] As a result, the Governor proclaimed a statewide drought. The Executive Order took effect on June 4, 2008, and addresses water shortages that have forced numerous local California communities to mandate water conservation or rationing programs, such as the DWP programs discussed in this section. The lack of water has created other problems, such as extreme fire danger due to dry conditions, economic harm to urban and rural communities, loss of crops and the potential to degrade water quality in some regions.[163] In response, the Executive Order directs the DWR to take the following actions:

- Facilitate water transfers to respond to emergency shortages across the state.
- Work with local water districts and agencies to improve local coordination.
- Help local water districts and agencies improve water efficiency and conservation.
- Coordinate with other state and federal agencies and departments to assist water suppliers, identify risks to water supply, and help farmers suffering losses.
- Expedite existing grant programs to help local water districts and agencies conserve.

The Executive Order also encourages local water districts and agencies to promote water conservation. As part of the Executive Order, DWR will work with local agencies to conduct aggressive water conservation and outreach campaign.[164]

Local

LADWP

The LADWP's Urban Water Management Plan (UWMP) is not only designed to meet the current requirements of the California Urban Water Management Planning Act, it serves as the City's master plan for water supply and resources management. This plan helps guide policy makers in the City and MWD, as well as providing important information to citizens of Los Angeles. While serving as a valuable resource for information, this plan provides the basic policy principles that will guide LADWP's decision-making process to secure a sustainable water supply for Los Angeles.

The 2010 UWMP was adopted in 2011 and was not available at the time of the Notice of Preparation for the draft EIR. It uses a horizon year of 2035. Therefore, this EIR was based on the 2005 UWMP, which utilized a horizon year of 2030. As discussed in LADWP's 2005 UWMP, water use in the City of Los Angeles is currently approximately equal to water use 20 years ago despite an over 750,000-person increase during this period. This stability in water use is largely attributed to the City's public education campaigns and water conservation programs over the past 15 years. The 2010 UWMP recognizes that in the period 2005-2010, water supplies in California and locally have become scarcer due to multi-year dry weather and regulatory restrictions affecting water supplies originating in the Sacramento-San Joaquin Delta (Bay Delta) and Colorado River Basin. It is projected that imported and local water supplies will be

[162] Office of the Governor. Press Release: Governor Schwarzenegger Proclaims Drought and Orders Immediate Action to Address Situation (GAAS:307:08) (June 4, 2008), http://gov.ca.gov/index.php?/print-version/press-release/9796/.
[163] Office of the Governor. Press Release: Governor Schwarzenegger Proclaims Drought and Orders Immediate Action to Address Situation (GAAS:307:08) (June 4, 2008), http://gov.ca.gov/index.php?/print-version/press-release/9796/.
[164] Office of the Governor. Press Release: Governor Schwarzenegger Proclaims Drought and Orders Immediate Action to Address Situation (GAAS:307:08) (June 4, 2008), http://gov.ca.gov/index.php?/print-version/press-release/9796/.

adversely affected by global climate change. Finally, contamination of local groundwater has resulted in reduced groundwater supplies for the City.

The 2010 Urban Water Management Plan (adopted in 2011) addresses water supply citywide through 2035. The projections in the 2010 UWMP, based on SCAG's 2008 RTP, utilized a City of Los Angeles population projection of 4,398,408 for 2030 and 4,467,560 for 2035. The 2010 UWMP reflects adjustments in growth and the higher rate at which the population is expected to grow as projected by SCAG. Since the population projections in the Proposed Plan are also based on SCAG projections and are consistent with assumptions the UWMP utilizes, the UWMP addresses the adequacy of water supply and indicates that the projected water availability is suitable for the projected population. While supply is projected to be adequate, LADWP is looking at a number of strategies to serve this growth, including conservation and recycling as well as seeking additional sources of water. The EIR does not eliminate environmental review for any project-level discretionary development.

A number of important changes have occurred since LADWP prepared its 2005 UWMP. First, LADWP released its Water Supply Action Plan (Action Plan) in 2008 to address the water reliability issues associated with the lowest snowpack on record in the Sierra Nevada (in 2007), the driest year on record for the Los Angeles Basin (in 2007), increased water for environmental mitigation and enhancement in the Owens Valley, San Fernando Groundwater Basin contamination, and reduced imported water from the Bay-Delta due to a prolonged water shortage and environmental restrictions on Delta exports. Second, a number of new requirements were added to the Urban Water Management Planning Act, such as addressing California's new mandate of reducing per capita water use by 20 percent by the year 2020. And third, LADWP developed a new water demand forecast based on a more rigorous analysis of water use trends and measurement of achieved water conservation. As a result of these changes, the implementation plan and schedule in the 2005 UWMP have been revised as follows:

- The Water Supply Action Plan provided more focused strategies, with more conservation and recycled water than the amounts planned in the 2005 UWMP.
- Owens Lake Dust Mitigation water use exceeded the 55,000 AFY estimated in 2005 UWMP and resulted in reduced LAA deliveries.
- Groundwater production decreased due to expanded San Fernando Groundwater Basin contamination impacts.
- Seawater desalination was removed from planned water supplies due to concerns over high cost and environmental impacts.
- The schedule for water transfers was postponed because the California Aqueduct interconnection with the Los Angeles Aqueduct has not yet been constructed.

Water demands are driven by a number of factors: demographics (population, housing and employment); implementation of water conservation programs; behavioral practices of water users; and weather. For the development of LADWP's 2010 UWMP, a new water demand forecast was prepared using: (1) the latest trends in water use; (2) econometric-derived elasticities for estimating the impacts of weather, price of water, income, and family size on per household and per employee water use; and (3) more accurate estimates of the effectiveness of water conservation in the City. Since 1990, housing density in the City has increased. This trend is expected to continue with the expected growth in the City's multi-family

residential housing. These historical and future trends in housing density will translate into lower water demands as multi-family households use far less water than single-family households.

City of Los Angeles General Plan Framework

The City of Los Angeles General Plan Framework (GPF), adopted December 1996 and amended most recently in August 2001, is a long range, citywide, comprehensive growth strategy. The GPF includes policies related to public infrastructure and services. These policies address infrastructure and public service systems, many of which are interrelated and support the City's population and economy. The GPF includes policies that address deficiencies, including the expansion of public services and infrastructure commensurate with levels of demand.

Policies from the GPF related to water supply are listed in Table 4.14-2 (General Plan Policies Relevant to Water Supply, Storage, and Distribution).[165]

Table 4.14-2 General Plan Policies Relevant to Water Supply, Storage, and Distribution

No.	*Policy*
GENERAL PLAN FRAMEWORK—WATER SUPPLY	
Policy 9.8.1	Monitor water usage and population and job forecast to project future water needs.
Policy 9.9.1	Pursue all economically efficient water conservation measures at the local and statewide level.
Policy 9.9.2	Develop reliable and cost-effective sources of alternative water supplies, including water reclamation and exchanges and transfers.
Policy 9.9.3	Protect existing water supplies from contamination, and clean up groundwater supplies so those resources can be more fully utilized.
Policy 9.9.4	Work to improve water quality and reliability of supply from the State Water Project and other sources.
Policy 9.9.5	Maintain existing rights to groundwater and ensure continued groundwater pumping availability.
Policy 9.9.6	Identify the needs for land and facilities necessary to provide an adequate and reliable water supply and develop those facilities in an environmentally and socially sensitive way.
Policy 9.9.7	Incorporate water conservation practices in the design of new projects so as not to impede the City's ability to supply water to its other users or overdraft its groundwater basins.
Policy 9.9.8	Design projects located in hillside areas so as to maintain the City's ability to suppress wildfires.
Policy 9.9.9	Clean or replace where necessary, deficient water distribution lines in the City.
Policy 9.10.1	Evaluate the water system's capability to meet water demand resulting from the Framework Element's land use patterns.
Policy 9.10.2	Solicit public involvement, when appropriate, in evaluating options for the construction of new and/or expansion of existing water facilities.
Policy 9.11.1	Provide for the prompt resumption of water service with adequate quantity and quality of water after an emergency.

SOURCE: Los Angeles Department of City Planning, *The Citywide General Plan Framework: An Element of the City of Los Angeles General Plan*, Chapter 9: Infrastructure and Public Services Element (adopted August 8, 2001), CPC 94-0354 GPF CF 95-2259 CF 01-1162, http://cityplanning.lacity.org/cwd/framwk/chapters/09/09.htm (accessed July 20, 2009).

[165] City of Los Angeles, *Los Angeles City General Plan*, Infrastructure and Public Services Element, http://cityplanning.lacity.org/cwd/framwk/chapters/09/09.htm (accessed July 20, 2009).

City of Los Angeles Municipal Code

LAMC Chapter V (Public Safety and Protection), Article 7 (Fire Protection and Prevention) (Fire Code), contains information about water and hydrant access and fire flow requirements needed based upon specific land uses. These requirements are described in the "Fire" section of Section 4.12 (Public Services and Recreation) of this DEIR.

LAMC Chapter XII (The Water Conservation Plan of the City of Los Angeles) describes the Emergency Water Conservation Plan and Water Closet, Urinal and Showerhead Regulations.[166] These requirements are described under Municipal Water Conservation, in this section.

"The Emergency Water Conservation Plan of the City of Los Angeles" (LAMC Sections 121.00–121.13)—Provides for the implementation of a citywide phased water conservation program to respond to dry weather periods based on the LADWP's evaluation of the projected supply and demand of City water supplies. The phased conservation program provides for mandatory water conservation measures at the user level and customer use curtailment of normal water usage.

As an initial step toward implementing the Short-Term Conservation Strategies of the Water Supply Action Plan described above, DWP revised the City's existing Emergency Water Conservation Ordinance.[167] Approved by the DWP Board of Commissioners on June 4, 2008, these revisions discourage water waste by expanding prohibited uses of water and increasing the penalties for violations.

The City has also adopted a Low Impact Development Ordinance (LID) that calls for development to mitigate runoff in a manner that captures rainwater at its source, while utilizing natural resources including rain barrels, permeable pavement, rainwater storage tanks, infiltration swales or curb bump-outs to contain water. The ordinance amends Sections 64.70.01 and 64.72 of Article 4.4 of Chapter V of the LAMC to expand the applicability of the existing Standard Urban Stormwater Mitigation Plan (SUSMP) requirements by imposing rainwater Low Impact Development (LID) strategies on projects that require building permits.

Proposed Plan Policies

Table 4.14-3 (Proposed San Pedro Community Plan Policies) lists proposed plan's policies that are applicable to issues of Water Supply.

[166] City of Los Angeles, *Los Angeles Municipal Code*, http://www.amlegal.com/los_angeles_ca/ (accessed August 14, 2009).
[167] City of Los Angeles, Emergency Water Conservation Ordinance No. 166,080 (effective July 25, 1990).

Table 4.14-3 Proposed San Pedro Community Plan Policies

No.	*Policy*
Policy CF8.1	Conserve water. Meet increases in the demand for water through conservation, the use of recycled water, and recharged local groundwater aquifers where permitted.
Policy CF8.2	Water conservation for projects. Require water conservation measures/devices that limit water usage for all new municipal and private projects and major alterations to existing municipal and private facilities.
Policy CF8.3	Water distribution. Coordinate with LADWP to expand, upgrade or improve the local water distribution system within the CPA when needed to accommodate increased demand for water.

Consistency Analysis

The proposed plan and implementing ordinances will update and replace the existing 1999 San Pedro Community Plan. The policies contained in the proposed plan pertaining to water require water conservation and the use of recycled water and limiting water usage. These policies are entirely consistent with General Plan policies relative to water usage, as well as the City's Standard Mitigation, noted above. While the proposed plan would allow growth, new development under the proposed plan would be required to comply with these policies and implement the standard mitigation described. Therefore, the proposed plan would be consistent with policies in the General Plan.

4.14.3 Project Impacts and Mitigation

Analytic Method

In preparing this EIR, projected water use was calculated using the generation factors based on the assumption of the unit water demand by area. According to correspondence with LADWP,[168] to determine the water demand of the various land uses proposed, water use demand factors were formulated based on growth projections used in LADWP's 2005 UWMP and the 2008 Water Supply Action Plan entitled "Securing L.A.'s Water Supply." Current and future consumption rates were calculated on a per capita basis. The demand generated by the proposed plan is compared to City supplies to assess the impact of the proposed plan on the water supply.

The Los Angeles CEQA Thresholds Guide (2006) sets forth guidance for the determination of significance of impacts to water supply. This guidance is based on CEQA Guidelines Appendix G and provides specific criteria to be considered when making a significance determination. In some cases, the Thresholds Guide includes quantitative thresholds. For purposes of this analysis, Thresholds Guide criteria are used, supplemented by the thresholds identified in Appendix G, where appropriate.

Thresholds of Significance

Implementation of the proposed plan may have a significant adverse impact on water supply if it would:

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

[168] Charles C. Holloway, written correspondence with Manager of Environmental Assessment and Planning, Los Angeles Department of Water and Power (June 23, 2009).

- Result in insufficient water supplies to serve the project from existing entitlements and resources and would cause the total estimated water demand for development under the Proposed Plan to exceed the planned amount for the area identified in the latest Urban Water Management Plan

Effects Not Found to Be Significant

There are no Effects Not Found to Be Significant with respect to water treatment or supply.

Less-Than-Significant Impacts

Impact 4.14-1 **The proposed plan could impact the water delivery and distribution infrastructure that serves the CPA. However, compliance with existing regulations would ensure this impact remains *less than significant*.**

The LADWP 2005 UWMP indicates that the citywide water demand for 2000 (considered a dry year) was 677,000 af. It estimates that Citywide water demand (based on normal weather conditions) for 2005 was 661,000 af (2.15 billion gallons) and 635,868 af for fiscal year 2006/07. LADWP projects that Citywide water demand (again, based on normal weather conditions) would be about 776,000 af (2.52 billion gallons) by 2030.[169]

The CPA is located in an urban area of the City that is predominately developed with residential uses. Less than 1 percent of the land within the CPA is currently undeveloped or vacant. The proposed plan and implementing ordinances could result in the redevelopment of existing land uses or the development of undeveloped/vacant land within the CPA. Additionally, the proposed plan and implementing ordinances would result in growth in the CPA through 2030. This additional development would increase the demand for water in the CPA. Table 4.14-4 (Proposed Plan Water Demand) shows the water demand that would result from reasonably expected capacity of the proposed plan.

Water demand in the CPA is currently about 11.27 mgd and is projected to increase by 2.01 mgd with full reasonably expected capacity of the proposed plan. The LADWP has indicated that the CPA contains water mains of various sizes and capacities and could not provide information for every water main within the CPA. The LADWP has indicated that they would provide information on a project-by-project basis. Water supply boundaries are not divided by CPA or other political units, but are bounded based on pressure zones dictated by ground elevation.

Water provided to the CPA that requires treatment at the LAAFP is currently 11.26 mgd. As shown in Table 4.14-4, projected water demand for the CPA in 2030 would be 13.25 mgd.[170] This increase in demand is due to the projected increase in population from 2005 to 2030 associated with the increase in dwelling units. The estimated water demand would increase by 1.98 mgd, which would increase the current usage of the water treatment facilities that currently serve the CPA. However, with 125 mgd of remaining treatment capability, LAAFP has ample capacity to provide the CPA with its projected water needs.

[169] For informational purposes, the 2010 UWMP projects that Citywide water demand would be approximately 641,622 acre-feet in 2035 with active and passive water conservation measures implemented.
[170] These water consumption estimates are based on historic water use rates that are anticipated to reduce with increased water conservation as well as recycling.

Table 4.14-4 Proposed Plan Water Demand

Land Use	*Water Use Generation Rates*	*Existing Use*		*Community Plan Reasonably Expected Capacity*		*Net Difference*	
			Water Use Generated (gpd)		*Water Use Generated (gpd)*		*Water Use Generated (gpd)*
Residential Dwelling Unit	350 gpd/du*	29,911 du	10,468,850 gpd	34,731 du	12,155,850 gpd	4,820 du	1,687,000 gpd
Nonresidential Uses	0.094 gpd/sf**	8,502,747 sf	799,258 gpd	11,975,036 sf	1,125,653 gpd	3,472,289 sf	326,395 gpd
Total		*11,268,108 gpd*		*13,281,503 gpd*		*2,013,395 gpd*	

SOURCE: 2005 Urban Water Management Plan for LADWP; City of Los Angeles, L.A. CEQA Thresholds Guide (2006), Exhibit M.2 12 (Sewage Generation Factors).

1 acre = 43,560 square feet.

* Residential generation rates are based on LADWP estimates.

** Commercial and industrial water consumption rates are based on a sewage generation factor of 0.08 gpd/sf, obtained from the City of Los Angeles L.A. CEQA Thresholds Guide (2006), multiplied by a factor of 1.18 for landscape irrigation usage.

Specific projects implemented as a result of the proposed plan would be required to meet applicable Los Angeles Department of Building and Safety and Los Angeles Fire Department requirements for on-site needs of domestic and private fire flow and off-site needs for public fire flow. Any water system upgrades that are necessary for a specific project would be specified by the City during project-level review and would be implemented at the developer's expense.

Additionally, any development resulting from the proposed plan and implementing ordinances would be required to provide LAFD- or LADWP-required upgrades to the water distribution systems serving the CPA. As with the code requirements for fire access, fire flows, number of hydrants, and fire suppression measures, these upgrades would be addressed for new development occurring under the proposed plan and implementing ordinances in conjunction with individual project approvals and in accordance with Community Plan and General Plan policies. The majority of existing major water supply facilities in the CPA is considered to be adequately sized for the anticipated growth. However, the upgrading and/or expansion of existing local distribution systems may be needed at certain locations within the CPA.

Existing GPF Element Policies 9.8.1, 9.9.1 through 9.9.9, 9.10.1, 9.10.2, and 9.11.1 address water supply issues by monitoring current demand, projecting future demand, and conservation techniques to maintain an adequate quality supply needed for consumers as well as for fire flow requirements. These policies would apply to existing and proposed developments in the CPA. In addition, all applicable standard mitigation measures would apply to future development in the. Further, Polices CF8.1, CF8.2, and CF8.3 of the proposed plan, included in Table 4.14-3, are intended to implement water conservation measures to meet and accommodate increased water demand created by new development permitted under the proposed plan. Based on the availability of sufficient capacity at LAAFP to handle the projected increase in water needs and included policies and mitigation measures, implementation of the proposed plan would have a *less-than-significant* impact on water treatment facilities, and no further mitigation is required.

Significant and Unavoidable Impacts

Impact 4.14-2 **The proposed plan could impact the water supplies that serve the CPA. While water supply is expected to be adequate, LADWP is looking at a number of strategies to serve citywide growth, including additional conservation measures, use restrictions, recycling programs, and regulatory changes that may occur over the life of the plan. The City of Los Angeles is faced with the challenge of providing a sufficient supply of safe, reliable, and affordable water to a growing population and business sector, while, at the same time, dealing with the realities of water resources availability. Implementation of mitigation measure MM4.14-1 and compliance with existing regulations would reduce this impact, but not to less than significant. Therefore, this impact is *significant and unavoidable*.**

The proposed plan and implementing ordinances could result in the redevelopment of existing land uses or the development of undeveloped/vacant land within the CPA. Less than 1 percent of the land within the CPA is currently undeveloped or vacant. Additionally, reasonably anticipated capacity of the proposed plan and implementing ordinances would result in an increase in 1,242 people, 4,820 dwelling units, and 3,472,289 sf of non-residential uses through 2030.

As discussed under Impact 4.14-1, water demand in the CPA is currently 11.27 mgd. As shown in Table 4.14-4, projected water demand for the CPA in 2030 under reasonably expected capacity of the proposed plan would be 13.28 mgd.[171] The estimated water demand would increase by 2.01 mgd over the amount of water currently demanded in the CPA. The increased water demand as a result of implementation of the proposed plan represents a 17.9 percent increase compared to existing demand in the CPA. Citywide demand in 2005 was 590 mgd, and is anticipated to increase to 692 mgd by 2030.[172] The increased demand in the CPA by 2030 would represent 1.9 percent of the total demand in the LADWP service area.

Future development occurring in the CPA under the proposed plan would be subject to provisions of the City's Water Supply Action Plan, the Emergency Water Conservation Plan Ordinance, and the City's standard mitigation measures intended to reduce water usage. Existing GPF Policies 9.8.1, 9.9.1 through 9.9.9, 9.10.1, 9.10.2, and 9.11.1 address water supply issues by monitoring current demand, projecting future demand, and conservation techniques to maintain an adequate quality supply needed for consumers as well as for fire flow requirements. These policies would apply to existing and proposed developments in the CPA. Further, Policies CF8.1 and CF8.2 of the proposed plan requires water conservation measures to be implemented in order to meet increase in demand for water that would be enforced through implementing ordinances.

Ongoing conservation efforts, implementation of mitigation measure MM4.14-1, and GPF and proposed plan policies designed to reduce water usage would help reduce potential impacts to water supplies. While the increased demand for water as a result of implementation of the proposed San Pedro Community Plan is negligible compared to citywide water demand, the proposed Plan and implementing

[171] These water consumption estimates are based on historic water use rates that are anticipated to reduce with increased water conservation as well as recycling.
[172] Los Angeles Department of Water and Power, *Securing L.A.'s Water Supply* (March 2008).

ordinances could have a potential impact on existing entitlements and water resources. The program level environmental clearance for the proposed Community Plan does not eliminate future environmental review for any discretionary specific project-level development. Future development requiring discretionary action will be evaluated under project-level environmental clearance. With proposed mitigation and compliance with existing regulations, impacts would be reduced, but not necessarily to less than significant. Therefore this impact would be considered ***significant and unavoidable***.

Mitigation Measures

The proposed plan includes programs and policies to encourage water conservation, which will result in a decrease in the demand for water. In addition to these programs and policies, the following mitigation measure shall be implemented for the proposed plan:

MM4.14-1 *As part of individual discretionary project review, the Planning Department shall work with LADWP to ensure appropriate expansion, upgrade, and/or improvement of the local water distribution system within the CPA as may be necessary to accommodate anticipated growth.*

Level of Significance After Mitigation

Implementation of the described mitigation and proposed plan policies would reduce impacts relating to water treatment infrastructure to ***less than significant***. However, due to the uncertainty of development projects and timing of such projects, impacts related to water resources would remain ***significant and unavoidable***.

4.14.4 Cumulative Impacts—Water Supply, Storage, and Distribution

Cumulative impacts are only analyzed for those project impacts that achieve a significance level of less-than-significant or higher. Therefore, thresholds with no impact will not be analyzed in this section. The geographic context for a cumulative analysis of water supply and treatment impacts is the service area of the LADWP.

To accommodate the City's increased demand for water resulting from increased development, water treatment facilities have been periodically expanded. Currently, the LAAFP has 21 percent remaining capacity. Accordingly, the LADWP has no plans to expand existing water facilities, as existing remaining capacity can accommodate water treatment demand anticipated at build-out of the City's General Plan, which includes present and future development occurring in the thirty-five Community Plan areas in the City, including the San Pedro CPA. As implementation of the proposed plan and implementing ordinances would not change the overall growth projected for the City of Los Angeles, the proposed plan, in combination with future development in the LADWP service area, would have a ***less-than-significant*** cumulative impact on water treatment.

Past development statewide and substantial rainfall shortages in multiple years have led to a recognized drought condition until recently. As noted, above, in response to potential water supply uncertainties, including those impacting the MWD, the Mayor, and DWP released a Water Supply Action Plan (Action Plan) on May 17, 2008. The Action Plan specifically addresses current and future SWP supply shortages.

By focusing on demand reduction, implementation of the Action Plan will ensure that long-term dependence on MWD supplies will not be exacerbated by potential future shortages.

The City's Emergency Water Conservation Ordinance[173] discourages water waste by expanding prohibited uses of water and increasing the penalties for violations. The ordinance takes a phased approach to prohibited uses, allowing the Department to expand phases depending on severity of water supply conditions. The City also has implemented standard mitigation measures to reduce water usage.

All present and future development is required to comply with these ordinances and mitigations, reducing individual water demand. Thus, while drought conditions remain throughout the southwestern United States, because of the extensive conservation efforts implemented citywide, implementation of the proposed plan and implementing ordinances would not likely make a cumulatively considerable contribution to the cumulative impact. However, while ongoing conservation efforts, implementation of mitigation measure MM4.14-1, and GPF and proposed plan policies designed to reduce water usage would help reduce potential impacts to water supplies, the plan's cumulative impact would be ***significant and unavoidable*** with regard to water resources.

4.14.5 References—Water Supply, Storage, and Distribution

Holloway, Charles C. Written correspondence with Manager of Environmental Assessment and Planning, Los Angeles Department of Water and Power, June 23, 2009.

Los Angeles Department of City Planning. Emergency Water Conservation Ordinance No. 166,080, effective July 25, 1990.

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Los Angeles Department of Water and Power. News Release: LADWP Strengthens Water Use Ordinance to Encourage Conservation, June 4, 2008. http://www.ladwpnews.com/go/doc/1475/204815/.

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Metropolitan Water District of Southern California. *Integrated Resources Plan (IRP) Update*, January 3, 2011. http://www.mwdh2o.com/mwdh2o/pages/yourwater/irp/ (accessed January 24, 2011).

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Office of the Governor. Office of the Governor Press Release: Governor Schwarzenegger Proclaims Drought and Orders Immediate Action to Address Situation (GAAS:307:08), June 4, 2008. http://gov.ca.gov/index.php?/print-version/press-release/9796/.

[173] City of Los Angeles, Emergency Water Conservation Ordinance No. 166,080 (effective July 25, 1990).

Wastewater

This section describes wastewater demand and treatment within the CPA and analyzes the potential physical environmental effects related to wastewater demand impacts created by construction of new or additional facilities associated with implementation of the proposed plan.

Data for this section were taken from a variety of sources. Full reference-list entries for all cited materials are provided in Section 4.14.10 (References).

4.14.6 Environmental Setting

Wastewater System Facilities and Treatment Plant

The City of Los Angeles Department of Public Works Bureau of Sanitation (LABS) provides sewer conveyance infrastructure and wastewater treatment services to the CPA. The City owns and operates four major wastewater treatment facilities: Hyperion Treatment Plant (HTP) in Playa del Rey, the Donald C. Tillman Water Reclamation Plant (TWRP) in the Sepulveda Basin, Los Angeles-Glendale Water Reclamation Plant (LAGWRP) across the freeway from Griffith Park, and the Terminal Island Treatment Plant (TITP) in the vicinity of the Los Angeles Harbor. Over 6,500 miles of sewer lines convey wastewater to the City's four wastewater treatment plants. Approximately 400 mgd flows through the system, which is regulated by federal and local entities.[174]

The CPA is served by the TITP, located at 445 Ferry Street in the Port of Los Angeles Community Plan Area. The TITP serves the Terminal Island Service Area (TISA), which includes the Los Angeles Harbor and nearby communities, including San Pedro and Wilmington.[175] The TITP uses tertiary treatment and microfiltration-reverse osmosis, biosolids handling, and biogas generation. The TITP was built in 1935 and upgraded most recently in 2002. Currently, the TITP has the capacity to provide tertiary treatment (secondary treatment and filtration) for an average dry weather flow (ADWF) of 30 million gallons daily (mgd). The projected ADWF for the TITP sewershed is 19 mgd, which provides for a remaining capacity of 11 mgd.[176]

4.14.7 Regulatory Framework

Federal

National Pollution Discharge Elimination System Permits (NPDES)

The NPDES permit system was established in the CWA to regulate both point source discharges (a municipal or industrial discharge at a specific location or pipe) and nonpoint source discharges (diffuse runoff of water from adjacent land uses) to surface waters of the United States. For point source

[174] Los Angeles Department of Public Works, City Sewers: About the City's Sewer System, http://www.lasewers.org/sewers/about/index.htm (accessed January 25, 2011).
[175] Los Angeles Department of Public Works, Bureau of Sanitation, and Los Angeles Department of Water and Power, *Integrated Resources Plan: Planning for Wastewater, Recycled Water, and Stormwater Management* (December 2006).
[176] Los Angeles Department of Public Works, Bureau of Sanitation, and Los Angeles Department of Water and Power, *Integrated Resources Plan: Planning for Wastewater, Recycled Water, and Stormwater Management* (December 2006).

discharges, such as sewer outfalls, each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge.

State

Operations of wastewater treatment plants are subject to regulations set forth by the California Department of Health Services and the California State Water Resources Control Board (SWRCB).

Regional

Los Angeles Regional Water Quality Control Board

The Los Angeles Regional Water Quality Control Board (RWQCB) enforces Section 122.41(m) of Part 40 of the Code of Federal Regulations, which prohibits the bypassing of treatment facilities and sanitary sewer overflows. In addition to the Code of Federal Regulations, the sewer conveyance system is subject to regulation by the South Coast Air Quality Management District (SCAQMD), which responds to complaints regarding nuisance odors.

The 10-year LA Sewers Program also regulates maintenance and construction project schedules and is currently managing approximately 150 sewer infrastructure improvement projects. The 10-year LA Sewers Program was put into place in order to carry out the mandates of the Collection System Settlement Agreement (CSSA), which has a compliance term of 10 years. The CSSA is a settlement agreement that was reached in 2004 to resolve a lawsuit brought against the City by the Santa Monica Baykeeper and other community organizations after a number of sanitary sewer overflows occurred in the City in February 1998. The CSSA requires the City to enhance, repair, and update the sewer system and sets specific timelines for the City to complete the upgrades. It also mandates that the City spend $8.5 million in supplemental environmental enhancement projects. Pursuant to the CSSA, the City prepares annual progress reports detailing its success at meeting the terms of the agreement. The sixth progress report, published in August 2010, indicates that the City is currently in full compliance with the CSSA and that the number of sanitary sewer overflows is declining.[177]

Local

Wastewater Facilities Plan/Integrated Resources Plan

The City's wastewater system is subject to Section 201 of the federal CWA. The CWA requires that the City adopt a facilities plan in accordance with the U.S. Environmental Protection Agency (EPA) Rules and Regulations, 40 CFR, Section 35.917, which provides:

> Facilities planning will demonstrate the need for the proposed facilities. Through a systematic evaluation of feasible alternatives, it will also demonstrate that the selected alternative is cost-effective, i.e., is the most economical means of meeting established effluent and water quality goals while recognizing environmental and social considerations.

[177] Los Angeles Department of Public Works, Bureaus of Sanitation, Engineering, Contract Administration. *Collection System Settlement Agreement, Sixth Annual Report, Fiscal Year 2009/10* (August 31, 2010).

The City prepared a Wastewater Facilities Plan (WFP) in 1982 and updated it in 1991. The 1991 WFP update planned for facilities through the year 2010 and currently regulates wastewater facilities in the City. The WFP is focused primarily on developing cost-effective construction improvements and analyzes wastewater, water recycling, and stormwater services in the City. In 1999, the City began an overhaul of the WFP to address the interrelationships between all of its wastewater services and stakeholder needs, creating a new plan called the Integrated Resources Plan (IRP).

The IRP addresses the City's wastewater needs through 2020 and consists of a Facilities Plan, a Financial Plan, and an EIR for the program. The IRP documents the development, evaluation, and identification of four integrated alternatives that would meet the future wastewater system, recycled water system, and runoff system needs of the City of Los Angeles for the next 20 years. These alternatives include an expansion of the Hyperion Treatment Plant, an expansion of both the Donald C. Tillman Water Reclamation Plant and the Los Angeles-Glendale Water Reclamation Plant, and two different expansion options for just the Tillman Plant. The Final EIR for the IRP was approved by the Board of Public Works on October 4, 2006, and certified by City Council on November 14, 2006.[178]

Specific components of the adopted IRP alternative include:

- Capacity of the Donald C. Tillman Water Reclamation Plant will be expanded to 100 mgd
- Digesters, secondary clarifiers and a truck loading facility will be added to the Hyperion Treatment Plant
- Effluent from the Donald C. Tillman and Los Angeles-Glendale Water Reclamation Plants that is recycled will be increased
- Neighborhood scale percolation systems will be built at vacant lots, parks and open spaces in the east valley
- New collection system sewers will be built
- On-site wet-weather runoff percolation systems will be added at schools and government properties
- Storage will be added at the Donald C. Tillman and the Los Angeles-Glendale Water Reclamation Plants
- Urban runoff management projects will be timed and coordinated with the City's requirements related to the Total Maximum Daily Loads
- Water conservation programs will be continued such as the installation of smart irrigation devices

The IRP maintains the same objectives for all of its alternatives, which include, but are not limited to: meeting the projected wastewater system needs of the City; complying with all regulations protecting public health and the environment; conforming to the sustainability guidelines of the City; providing for safe use of recycled water; and providing cost-effective services. In developing the alternatives, the City also allowed for application of various criteria to accommodate changes and unanticipated conditions that could be encountered during implementation of the selected alternative.[179]

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[178] Los Angeles Department of Public Works, Bureau of Sanitation. *Integrated Resources Program* (December 2006), http://www.lacity.org/san/irp/approvedfinaleir.htm (accessed June 24, 2009).
[179] City of Los Angeles, *Integrated Resources Plan Draft Environmental Impact Report*, SCH No. 2004071091 (December 2005), p. 1-4.

City of Los Angeles General Plan Framework

The City of Los Angeles GPF, adopted December 1996 and amended most recently in August 2001, is a long range, citywide, comprehensive growth strategy. The GPF includes policies related to public infrastructure and services. These policies address infrastructure and public service systems, many of which are interrelated and support the City's population and economy. The GPF includes policies that address deficiencies, including the expansion of public services and infrastructure commensurate with levels of demand.

Policies from the GPF related to Wastewater are listed in Table 4.14-5 (General Plan Policies Relevant to Wastewater).[180]

Table 4.14-5 General Plan Policies Relevant to Wastewater

No.	*Policy*
GENERAL PLAN FRAMEWORK—WASTEWATER	
Policy 9.1.1	Monitor wastewater generation.
Policy 9.1.2	Monitor wastewater flow quantities in the collection system and conveyed to the treatment plants.
Policy 9.1.3	Monitor wastewater effluent discharged into the Los Angeles River, Santa Monica Bay, and San Pedro Harbor to ensure compliance with water quality requirements.
Policy 9.2.1	Collect and treat wastewater as required by law and Federal, state, and regional regulatory agencies.
Policy 9.2.2	Maintain wastewater treatment capacity commensurate with population and industrial needs.
Policy 9.2.3	Provide for additional wastewater treatment capacity in the Hyperion Service Area (HSA), as it becomes necessary.
Policy 9.2.4	Continue to implement programs to upgrade the wastewater collection system to reduce existing deficiencies and accommodate the needs of growth and development.
Policy 9.2.5	Review other means of expanding the wastewater system's capacity.
Policy 9.3.1	Reduce the amount of hazardous substances and the total amount of flow entering the wastewater system.
Policy 9.3.2	Consider the use of treated wastewater for irrigation, groundwater recharge, and other beneficial purposes.
Policy 9.4.1	Restore minimal operations as soon as possible after an emergency, and full operations as soon as feasible.
Policy 9.4.2	Establish joint cooperation agreements with other jurisdictions for mutual assistance during emergencies.

SOURCE: Los Angeles Department of City Planning, *The Citywide General Plan Framework: An Element of the City of Los Angeles General Plan*, Chapter 9: Infrastructure and Public Services Element (adopted August 8, 2001), CPC 94-0354 GPF CF 95-2259 CF 01-1162, http://cityplanning.lacity.org/cwd/framwk/chapters/09/09.htm (accessed July 20, 2009).

City of Los Angeles Municipal Code

LAMC Chapter V (Public Safety and Protection) describes different categories of wastewater discharge and peak flow "shall mean the maximum 5-minute rate of wastewater flow to be generated from the

[180] City of Los Angeles, *City of Los Angeles General Plan*, Infrastructure and Public Services Element, http://cityplanning.lacity.org/cwd/framwk/chapters/09/09.htm (accessed July 20, 2009).

premises as estimated by the City Engineer." In addition, the LAMC defines permitted regulations related to industrial wastewater.[181]

LAMC Chapter XII (The Water Conservation Plan of the City of Los Angeles) also defines recycled water as treated wastewater suitable for direct beneficial use, or controlled use, as approved by the California Department of Public Health.

Proposed Plan Policies

Table 4.14-6 (Proposed San Pedro Community Plan Policies) lists policies of the proposed plan that are applicable to issues of Wastewater.

Table 4.14-6 Proposed San Pedro Community Plan Policies

No.	*Policy*
Policy CF9.1	Wastewater output. Require that wastewater flows be minimized in existing and future developments through stricter water conservation measures (e.g. xeriscaping landscaping and installation of low-flow toilet requirements), recycling efforts and other features that reduce on-site wastewater output.
Policy CF9.2	Recycled water. Promote the use of recycled water in new Industrial developments.
Policy CF9.3	Wastewater treatment. Promote advanced waste reduction and diversion methods for all wastewater and solid waste treatment, including the establishment of methane recovery facilities and the implementation of waste-to-energy projects where characteristics meet criteria for effective energy generation.

Consistency Analysis

The proposed plan will replace the existing 1999 San Pedro Community Plan. Wastewater generation is directly related to water usage, and water conservation results in lower generation of wastewater. The policies contained in the proposed plan pertaining to water require water conservation and the use of recycled water and limiting water usage. These policies are entirely consistent with General Plan policies relative to water usage, noted above. While the proposed plan would allow growth, all new development under the proposed plan would be required to comply with these policies and comply with existing regulations, which would reduce water usage and, therefore, wastewater generation. All new development would also be required to comply with NPDES requirements. Therefore, the proposed plan would be consistent with the identified policies in the General Plan.

4.14.8 Project Impacts and Mitigation

Analytic Method

In preparing this EIR, projected wastewater generation was calculated using the generation factors provided by the L.A. CEQA Thresholds Guide and existing land use data. The wastewater generated by the proposed plan would be compared to City treatment capacity to assess the impact of the proposed plan on wastewater.

[181] City of Los Angeles, *City of Los Angeles Municipal Code*, http://www.amlegal.com/los_angeles_ca/ (accessed August 18, 2009).

The Los Angeles CEQA Thresholds Guide (2006) sets forth guidance for the determination of significance of wastewater impacts. This guidance is based on CEQA Guidelines Appendix G and provides specific criteria to be considered when making a significance determination. In some cases, the Thresholds Guide includes quantitative thresholds. For purposes of this analysis, Thresholds Guide criteria are used, supplemented by the thresholds identified in Appendix G, where appropriate.

Thresholds of Significance

Implementation of the proposed plan may have a significant adverse impact on wastewater if it would:

- Result in an inability to accommodate the CPA's projected wastewater flow, and 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
- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board
- Result in a determination by the wastewater treatment provider that it has inadequate capacity to serve the projected demand in addition to the provider's existing commitments

Effects Not Found to Be Significant

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

Less-Than-Significant Impacts

Impact 4.14-3 **Implementation of the proposed plan would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board. This impact is *less than significant*.**

In certain areas of the CPA, the proposed plan would allow for the amendment of land use designations and/or the potential for an increase in densities of existing uses. In select locations, land use designations would be amended to accommodate mixed use, which would allow for residential uses in an area that is currently utilized for commercial purposes. In all cases, existing uses within the CPA would be allowed to remain. Additional development throughout the CPA accommodated under the proposed plan, such as infill and redevelopment, would increase wastewater treatment demand.

New development under the proposed plan would comply with all provisions of the NPDES program, as enforced by the RWQCB. Therefore, implementation of the proposed plan would not result in an exceedance of wastewater treatment requirements. All future projects under the proposed plan would be required to comply with all applicable wastewater discharge requirements issued by the SWRCB and RWQCB.

Existing GPF Element Policies 9.1.1 through 9.1.3, 9.2.1 through 9.2.5, 9.3.1, 9.3.2, 9.4.1, and 9.4.2 address wastewater issues by monitoring generation and flow quantities, treating wastewater to the standards set by law and regulatory agencies, and expanding the system's capacity to accommodate growth and development. These policies would apply to existing and future development in the CPA. Further, future development under the proposed plan would be required to adhere to federal, state, regional, and local regulations, and the proposed goals and policies identified in Table 4.14-6 above.

Implementation of the proposed plan would have a *less-than-significant* impact and no mitigation measures are required.

Impact 4.14-4 **Implementation of the proposed plan could result in an inability to accommodate the CPA's projected wastewater flow, and 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. Implementation of mitigation measures MM4.14-2 through MM4.14-5 would reduce this impact to *less than significant*.**

The CPA is located in an urban area of the City that is predominantly developed with residential uses. Less than 1 percent of the land within the CPA is currently undeveloped or vacant. The proposed plan and implementing ordinances could result in the redevelopment of existing land uses or the development of undeveloped/vacant land within the CPA. Additionally, the proposed plan and implementing ordinances would result in an increase in population in the CPA from approximately 82,112 to 83,354 and an increase in commercial and industrial development of 3,472,289 sf by 2030. This additional development would increase wastewater generation in the CPA. However, the treatment plants that serve the City of Los Angeles have been sized to accommodate growth from build-out of the General Plan. The City of Los Angeles has adjusted growth estimates, redistributing growth to targeted areas while keeping the maximum growth capacity the same. The growth in the CPA would not represent growth that has not already been considered in the General Plan Framework Element.

The Los Angeles Regional Water Quality Control Board (LARWQCB) enforces wastewater treatment and discharge requirements for properties. The CPA is not served by a private on-site wastewater treatment system, but instead conveys wastewater via municipal sewage infrastructure to the TITP. Treatment plants in the City of Los Angeles are subject to the state's wastewater treatment requirements. Wastewater from the CPA at the TITP would therefore be treated according to the wastewater treatment requirements by the LARWQCB.

The City of Los Angeles provides wastewater generation rates based on land use.[182] The proposed plan and implementing ordinances would result in the addition of 4,820 dwelling units to the CPA and 3,472,289 sf of nonresidential uses. Using the residential (duplex/townhome/single-family dwelling—3 bedroom) rate of 230 gallons per dwelling unit per day and the nonresidential rate of 0.08 gallons per sf per day, full build-out of the proposed plan would result in the amount of wastewater generated in the CPA by 1.39 mgd.[183] Full CPA generation data is available in Table 4.14-7 (Wastewater Generated from Proposed Plan Build-Out).

The TITP has a remaining capacity of 11 mgd and would be able to accommodate the approximately 1.39 mgd increased wastewater flow from the CPA.

[182] City of Los Angeles, *L.A. CEQA Thresholds Guide* (2006), Exhibit M.2-12 (Sewage Generation Factors).
[183] 4,820 x 230 = 1,108,600

Table 4.14-7 Wastewater Generated from Proposed Plan Build-Out

		Existing Use		*Proposed Plan Buildout*		*Net Difference*	
Land Use	*Wastewater Generation Rates*		*Wastewater Generated (gpd)*		*Wastewater Generated (gpd)*		*Wastewater Generated (gpd)*
Residential Dwelling Unit	230 gpd/du*	29,911 du	6,879,530 gpd	34,731 du	7,988,130 gpd	4,820 du	1,108,600 gpd
Nonresidential Uses	0.08 gpd/sf	8,502,747 sf	680,220 gpd	11,975,036 sf	958,003 gpd	3,472,289 sf	277,783 gpd
Total	—	—	*7,559,750 gpd*	—	*8,926,813 gpd*	—	*1,386,383 gpd*

SOURCE: City of Los Angeles, *L.A. CEQA Thresholds Guide* (2006), Exhibit M.2 12 (Sewage Generation Factors).
1 acre = 43,560 square feet.
* The generation rate for single-family residential units was used to approximate the worst-case scenario.

Similar to water supply, wastewater generation is a function of population and industry within the wastewater service area. The IRP addresses the City's wastewater facilities needs thorough 2020 using estimates and projections of future population growth. The IRP does not include estimates to 2030; however, as it is assumed that the City will undertake an update of the IRP that would extend to or beyond 2030. The IRP indicates there is over 10 mgd of remaining capacity available at the TITP; therefore, there is no need to investigate expansion of the facility.

Additionally, any development resulting from the proposed plan and implementing ordinances would be required to provide LABS-required upgrades to the wastewater distribution systems serving the CPA. As with the code requirements, these upgrades would be addressed for new development proposed under the proposed plan and implementing ordinances in conjunction with individual project approvals. The CPA is well served by existing sewer infrastructure, and future development resulting from the proposed plan and implementing ordinances would primarily be infill and redevelopment projects, rather than expansions into areas not already connected to the city's sewer conveyance system.

Existing GPF Element Policies 9.1.1 through 9.1.3, 9.2.1 through 9.2.5, 9.3.1, 9.3.2, 9.4.1, and 9.4.2 address wastewater issues by monitoring generation and flow quantities, treating wastewater to the standards set by law and regulatory agencies, and expanding the system's capacity to accommodate growth and development. These policies would apply to existing and future discretionary development in the CPA. In addition, mitigation measures MM4.14-2 through MM4.14-5 would apply to all future discretionary development approvals in the CPA. Further, future development in the CPA would be required to comply with Policies CF9.1, CF9.2, and CF9.3 of the proposed plan, which promote wastewater reduction through implementation of water conservation measures. It is anticipated that water conservation will lead to reductions in the amount of wastewater generated. Due to aging infrastructure, replacement of sewer lines in the area can reasonably be expected with or without the proposed plan. Therefore, the proposed plan and implementing ordinances would not cause a measureable increase in wastewater flows that would exceed infrastructure capacity or require the construction of new wastewater treatment facilities or expansion of existing facilities other than localized improvements, which would not be expected to have significant environmental impacts. Impacts are ***less than significant***.

Impact 4.14-5 **Implementation of the proposed plan would not result in a determination by the wastewater treatment provider that serves or may serve the CPA that it has inadequate capacity to serve the plan's projected demand in addition to the provider's existing commitments. This impact is *less than significant*.**

As discussed under Impact 4.14-4, implementation of the proposed plan would not exceed the capacity of the wastewater treatment system. The TITP currently has a remaining capacity of 11 mgd and there are no current plans to expand the facility because of insufficient capacity. Therefore, the wastewater treatment provider has adequate capacity to serve the future demand created by implementation of the proposed plan, in addition to the provider's existing commitments, and impacts are *less than significant*.

Mitigation Measures

The proposed plan contains programs and policies to reduce water demand, which, in turn, reduces wastewater generation. Development under the proposed plan would comply with all local, State, and federal regulations pertaining to wastewater. In addition to these programs and policies, the following mitigation measures shall be implemented for the proposed plan:

MM4.14-2 *Continue to implement existing water conservation measures, including ultra low-flush installation and, school educational, public information, and residential programs, and develop new ones as needed*

MM4.14-3 *Enforce the City's water conservation ordinance and develop a comprehensive water reuse ordinance that will establish, among other things, goals on reuse of reclaimed water*

MM4.14-4 *Establish water reuse demonstration and research programs and implement educational programs among consumers to increase the level of acceptance of reclaimed water*

MM4.14-5 *Provide incentives for the development of new markets and uses for reclaimed water*

Level of Significance After Mitigation

Implementation of the described measures would reduce impacts on wastewater to *less than significant*.

4.14.9 Cumulative Impacts—Wastewater

Cumulative impacts are only analyzed for those plan impacts that achieve a significance level of less-than-significant or higher. Therefore, thresholds with no impact will not be analyzed in this section.

The geographic context for this cumulative analysis is the City of Los Angeles, as served by the TITP. Past development has not exceeded wastewater treatment requirements of the RWQCB, as all development in the City is required to comply with these regulations. Future development, including development under the proposed plan, would similarly be required to comply with waste discharge requirements and all provisions of the NPDES program, as enforced by the RWQCB. Therefore, implementation of the proposed plan would not result in an exceedance of wastewater treatment requirements. Therefore, the proposed plan's cumulative impact is *less than significant*.

Past development in the City could have resulted in localized exceedance of sewer capacity or incrementally exceed the scheduled capacity of any one wastewater treatment plant. Past development has also required expansion of the wastewater treatment plants that serve the City. Construction of wastewater treatment plants or plant expansion likely resulted in environmental effects; however, these effects have not led to cumulatively considerable environmental effects. The City of Los Angeles has planned treatment plant capacity based on General Plan build-out which includes present and future development occurring in the thirty-five Community Plan areas in the City, including the San Pedro Community Plan. The City has determined that future cumulative development citywide as allowed under the General Plan would not result in the need for expansion of or construction of wastewater treatment plants. As implementation of the proposed plan and implementing ordinances would not change the overall growth projected for the City of Los Angeles, the proposed plan, in combination with future development, the plan's cumulative impact is ***less than significant***.

4.14.10 References—Wastewater

Los Angeles Department of City Planning. *City of Los Angeles Municipal Code*. http://www.amlegal.com/los_angeles_ca/ (accessed August 18, 2009).

———. *Integrated Resources Plan Draft Environmental Impact Report*. SCH No. 2004071091, December 2005.

———. *L.A. CEQA Thresholds Guide*, 2006. Exhibit M.2-12 (Sewage Generation Factors).

———. *The Citywide General Plan Framework: An Element of the City of Los Angeles General Plan*. Chapter 9: Infrastructure and Public Services Element. CPC 94-0354 GPF CF 95-2259 CF 01-1162, adopted August 8, 2001. http://cityplanning.lacity.org/cwd/framwk/chapters/09/09.htm (accessed July 20, 2009).

Los Angeles Department of Public Works. City Sewers: About the City's Sewer System. http://www.lasewers.org/sewers/about/index.htm (accessed January 25, 2011).

Los Angeles Department of Public Works, Bureau of Sanitation. *Integrated Resources Program*, December 2006. http://www.lacity.org/san/irp/approvedfinaleir.htm (accessed June 24, 2009).

Los Angeles Department of Public Works, Bureaus of Sanitation, Engineering, Contract Administration. *Collection System Settlement Agreement, Sixth Annual Report, Fiscal Year 2009/10*, August 31, 2010.

Los Angeles Department of Public Works, Bureau of Sanitation, and Los Angeles Department of Water and Power. *Integrated Resources Plan: Planning for Wastewater, Recycled Water, and Stormwater Management*, December 2006.

Solid Waste

This section describes solid waste generation and disposal within the CPA and analyzes the potential physical environmental effects related to solid waste impacts created by construction of new or additional facilities associated with implementation of the proposed plan. Solid waste is defined as refuse requiring collection, recycling, or disposal into a landfill.

Data for this section were taken from a variety of sources. Full reference-list entries for all cited materials are provided in Section 4.14.15 (References).

4.14.11 Environmental Setting

Within the City of Los Angeles, solid waste management, including collection and disposal services and landfill operation, is administered by various public agencies and private companies. Single-family residential and limited multi-family residential refuse is collected by the Los Angeles Bureau of Sanitation (LABS). Waste generated by multi-family residential sources; construction waste; and all commercial and industrial sources is collected by private contractors.

Waste disposal sites, or landfills, are operated by both the City and the County of Los Angeles (County), as well as by private companies. In addition, transfer stations are utilized to temporarily store debris until larger hauling trucks are available to transport the materials directly to the landfills. Landfill availability is limited by several factors, including (1) restrictions to accepting waste generated only within a landfills' particular jurisdiction and/or wasteshed boundary; (2) tonnage permit limitations; (3) types of waste; and (4) operational constraints.

Landfills

The City of Los Angeles is serviced by the Sunshine Canyon Landfill and Chiquita Canyon Landfill. However, over 90 percent of the solid waste generated in the City of Los Angeles is disposed at the Sunshine Canyon Landfill in Sylmar. Both landfills accept residential, commercial, and construction waste. The landfill capacity and intake for each is shown in Table 4.14-8 (Landfill Capacity and Intake).

Table 4.14-8 Landfill Capacity and Intake

Landfill Facility	*Estimated Closure Date*	*Permitted Daily Intake (tons/day)*	*Average Daily Intake (tons/day)*	*Remaining Permitted Daily Intake (tons/day)*
Sunshine Canyon	2043	12,100	6,448	5,652
Chiquita Canyon	2015	6,000	4,933	1,067
			Total Remaining Intake	*6,719*

SOURCE: Los Angeles County Department of Public Works, Environmental Programs Division, *Los Angeles County Countywide Integrated Waste Management Plan, 2006 Annual Report* (June 2008);
Sunshine Canyon Landfill, *Final Annual Report, Calendar Year 2009* (June 1, 2010).

Sunshine Canyon

Sunshine Canyon Landfill, located in Sylmar, California, is governed by two separate land use permits because the facility previously operated as two distinct units. One portion of the landfill is located in the City of Los Angeles' jurisdiction, and one portion is located in unincorporated Los Angeles County. In late 2008, the site received a revised Solid Waste Facilities Permit and Waste Discharge Requirements to allow operation of a combined City/County operation, and beginning January 1, 2009, the site changed recordkeeping and reporting to reflect this joint operation. The joint operation has a permitted capacity of 12,100 tons per day, with an average intake of 6,448 tons per day. This indicates that the Sunshine Canyon Landfill is currently permitted to receive an additional 5,652 tons per day of solid waste

Chiquita Canyon

In addition to the Sunshine Canyon Landfill, the Chiquita Canyon Landfill accepts waste generated by activities in the CPA. The Chiquita Canyon Landfill is currently permitted to intake 6,000 tons per day of solid waste and receives approximately 4,933 tons per day. This indicates that the Chiquita Canyon Landfill is currently permitted to receive an additional 1,067 tons per day of solid waste.

Waste-to-Energy Facilities

There are two waste-to-energy facilities in the City of Los Angeles, the Commerce facility, which currently handles 7,140 tons per year (0.2 percent of the total solid waste), and the Southeast Resource Recovery Facility (SERRF), which currently handles 27,380 tons per year (0.7 percent of total generation.[184] The Commerce facility has a capacity of 350 tons per day and the SERRF has a capacity of 1,380 tons per day.

Recycling Facilities

Waste generated in the City may also be diverted from landfills and recycled. The Bureau of Sanitation, Solid Resources Citywide Recycling Division (SRCRD) develops and implements source reduction, recycling, and composting programs in the City. The SRCRD provides technical assistance to public and private recyclers, oversees the City's recycling program, manages the Household Hazardous Waste program, and helps create markets for recyclable materials (see below for more information on the Household Hazardous Waste and recycling programs). In order to provide more information to public and private sectors regarding construction waste diversion, the SRCRD publishes the Construction and Demolition Recycling Guide (the "Guide"), updated in August 2007, which is a directory of recyclers and certified mixed-debris processors that serve the Greater Los Angeles area. The Guide, in addition to an alphabetical listing of companies, also provides listings by materials accepted (e.g., wood waste, scrap metal, drywall, etc.) so that developers and contractors can tailor their recycling choices to suit different project needs. While some of the recycling companies listed in the Guide also recycle operational waste, the County of Los Angeles Department of Public Works maintains a list of all types of landfill and recycling facilities in the County. CalRecycle provides additional facility details for recycling companies in the County.

The Bureau of Sanitation operates a curbside recycling program which collects recyclables from over 750,000 single-family homes in the City and to over 220,000 small multi-family units (buildings of four units or less).[185]

[184] Los Angeles Department of Public Works, Bureau of Sanitation, Fact Sheet: Solid Waste Facilities—The System Infrastructure, http://www.zerowaste.lacity.org/files/info/fact_sheet/SWIRPfacilitySystemInfrastructureFactSheet_032009.pdf.
[185] Los Angeles Department of Public Works, Bureau of Sanitation, Solid Resources: Curbside Recycling Program. http://www.lacitysan.org/solid_resources/recycling/curbside/Curbside_Recycling.htm (accessed January 27, 2010).

Household Hazardous Waste

The City operates a Household Hazardous Waste Collection Program in cooperation with the County of Los Angeles Department of Public Works. The program is a way for private residents to safely dispose of household chemicals such as household cleaning products, paint substances, automotive products, pool chemicals, fertilizers, pesticides, batteries, and fluorescent light bulbs. City and County residents can bring their household hazardous waste to S.A.F.E. Centers (Solvents/Automotive/Flammables/ Electronics). These permanent collection centers are located throughout the City and County, and are staffed with employees trained in hazardous waste handling who safely unload residents' waste into trucks and trailers on site.[186]

Additionally, CalRecycle has certified used oil collection locations throughout the state. These locations accept uncontaminated oil throughout the year. A list of the locations can be obtained from the Bureau of Sanitation or directly from CalRecycle.[187]

Solid Waste Recycling, Conversion, Reduction, and Diversion

According to the City of Los Angeles Solid Resources Infrastructure Strategy Facilities Plan, the infrastructure and programs that are planned for the City of Los Angeles emphasize the practices of recycling and source reduction in order to achieve a 70 percent diversion rate by 2020.[188] In 2006, the City of Los Angeles is estimated to have achieved an actual diversion rate of 59 percent.[189]

On August 18, 2005, a task force was assembled by the Sanitation District adopted the Conversion Technology Evaluation Report, which evaluated hundreds of technologies. The Conversion Technology Evaluation Report detailed a step-by-step plan to develop a Conversion Technology Demonstration Facility, which could validate the technical, environmental, and economic feasibility of conversion technologies; provide a showcase for interested parties; and yield tangible support data for future development. The goals of the Southern California Conversion Technology Demonstration Project are to:

- Educate about solid waste challenges
- Support organizations working toward zero-waste
- Evaluate and promote the development of conversion technologies to recover energy and products from waste
- Work with communities in Southern California to create a demonstration conversion technology facility

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[186] Los Angeles Department of Public Works, Bureau of Sanitation, Special Materials: Hazardous Waste, http://www.lacitysan.org/solid_resources/special/hhw/safe_centers/index.htm (accessed January 27, 2011).
[187] Los Angeles Department of Public Works, Bureau of Sanitation, Used Oil Collection Centers, http://www.lacity.org/san/solid_resources/special/hhw/used_oil_centers.htm (accessed February 5, 2008).
[188] Los Angeles Department of Public Works, Bureau of Sanitation, Solid Resources Infrastructure Strategy Facilities Plan (November 2000), http://www.lacitysan.org/solid_resources/strategic_programs/diversion_strategy/index.htm.
[189] California Integrated Waste Management Board, Countywide, Regionwide, and Statewide Jurisdiction Diversion Progress Report (August 31, 2009), http://www.calrecycle.ca.gov/LGCentral/DivMeasure/StepByStep.htm.

Conversion technologies include a variety of thermal, chemical, and biological processes, such as incineration, pyrolysis, destructive distillation, and gasification, that break down solid waste into usable resources such as ethanol, biodiesel and other green fuels. The County of Los Angeles closed the Phase III/IV Request for Proposals for the Conversion Technology Project on January 15, 2009. Phase III is the development of a demonstration facility, and Phase IV is the siting of commercial facilities in Los Angeles County.[190]

4.14.12 Regulatory Framework

Federal

With the exception of determining where disposal sites are located and operational standards, there are no applicable federal laws, regulations, or policies that pertain to solid waste.

State

California Department of Resources Recycling and Recovery

At the state level, the management of solid waste is governed by regulations established by the California Department of Resources Recycling and Recovery (CalRecycle), which delegates local permitting, enforcement, and inspection responsibilities to local enforcement agencies. Historically, these duties were handled by the California Integrated Waste Management Board (CIWMB), but the CIWMB was recently reorganized and became a fully integrated part of CalRecycle.

Assembly Bill 939

The State Legislature, through Assembly Bill 939, The California Integrated Waste Management Act of 1989, mandated that all cities and counties prepare, adopt, and submit a comprehensive solid waste management plan to the county. The plan must address and detail each individual community's efforts and intended policies in the areas of waste characterization, source reduction, recycling, composting, solid waste facilities, education/public information, funding, special wastes, and hazardous wastes. The law also mandates that communities meet certain specific identified targets for percentages of waste reduction and recycling over specific identified targets for percentages of waste reduction and recycling over specified time periods (25 percent by 1995 and 50 percent by the year 2000).

California Integrated Waste Management Act

In 1989, the Legislature adopted the Integrated Waste Management Act of 1989, which established an integrated waste management hierarchy that consists of the following in order of importance: source reduction, recycling, composting, and land disposal of solid waste. The law also required that each county prepare a new Integrated Waste Management Plan. The Act further required each city to prepare a Source Reduction and Recycling Element (SRRE) by July 1, 1991. Each source reduction element includes a plan for achieving a solid waste goal of 25 percent by January 1, 1995, and 50 percent by

[190] The Southern California Conversion Technology Demonstration Project, Vision, http://www.socalconversion.org/vision.html (accessed 2009).

January 1, 2000. Recently, a number of changes to the municipal solid waste diversion requirements under the Integrated Waste Management Act were adopted, including a revision to the statutory requirement or 50 percent diversion of solid waste. Under these provisions, local governments shall continue to divert 50 percent of all solid waste on and after January 1, 2000.

Senate Bill 63

On July 28, 2009, Senate Bill 63 was approved and filed, allowing the abolishment of the California Integrated Waste Management Board (CIWMB) and transfer of its duties and responsibilities to a new department called the Department of Resources Recycling and Recovery, or CalRecycle. This legislation was passed in order to combine the State's solid waste and recycling programs. The combination of the Waste Management Division and the Division of Recycling to form CalRecycle went into effect on January 1, 2010.

Local

City of Los Angeles Bureau of Sanitation

The City of Los Angeles Solid Waste Management Policy Plan (CiSWMPP) (adopted November 1994) provides additional goals, objectives, and policies for solid waste management in the City. The Framework Element of the General Plan of the City of Los Angeles ("General Plan Framework") also supports AB 939 and its goals by encouraging "an integrated solid waste management system that maximizes source reduction and materials recovery and minimizes the amount of waste requiring disposal."

In its efforts to reach AB 939 goals and conform to the General Plan Framework, the Bureau of Sanitation prepared the Solid Resources Infrastructure Strategy Facilities Plan in 2000, which outlines several objectives, including, but not limited to, the following:

- Continue to research and develop the use of Material Recovery Facilities to preprocess all residual waste prior to delivery to a disposal site
- Develop a comprehensive and continual public education and community outreach program designed to educate and inform the public about the City's solid resources programs and strategies

In addition to the preceding list of objectives, the Bureau of Sanitation also operates programs such as bulky item pick-ups, e-waste collection events, and curbside recycling.

City of Los Angeles Solid Waste Management Policy Plan

The 1993 City of Los Angeles Solid Waste Management Policy Plan is the long-range solid waste management policy plan for the City, while the Source Reduction and Recycling Element, updated annually, is the strategic action policy plan for diverting solid waste from landfills. The Solid Waste Management Policy Plan consists of implementing a residential curbside program and a commercial technical assistance program, and provides that the remaining waste be disposed in local and possibly remote landfills. The Solid Waste Management Policy Plan has established the objective of reducing at the source or recycling a minimum of 50 percent of the City's waste by the year 2000 or as soon as possible thereafter.

Additionally, the Solid Waste Management Policy Plan has established a Citywide waste diversion objective of 70 percent by 2020. The Solid Waste Management Policy Plan is incorporated into solid waste management planning and ensures that disposal practices do not conflict with diversion goals. The following five goals of the Solid Waste Management Policy Plan reflect the importance of source and materials recovery and, thus, the intent of the City to follow state regulations.

- Maximum Waste Diversion: The goal is to create an integrated solid waste management system that maximizes source reduction and materials recovery and minimizes waste requiring disposal.
- Adequate Recycling Facility Development: To expand the siting of facilities that enhance waste reduction, recycling and composting throughout the City and beyond the current limits of the zoning code in ways that are economically, socially, and politically acceptable.
- Adequate Collection, Transfer, and Disposal of Mixed Solid Waste: The City shall ensure that all mixed solid waste that cannot be reduced, recycled, or composted be collected, transferred, and disposed of in a manner that minimizes environmental impacts.
- To develop an environmentally sound solid waste management system that protects public health and safety, protects natural resources and utilizes the best available technology to accommodate the needs of the City.
- The City shall operate a cost-effective integrated waste management system that emphasizes source reduction, recycling, reuse and market development and is adequately financed to meet operational and maintenance needs.

The City's Source Reduction and Recycling Element serves as a guidance document and strategic action plan for diverting solid waste from landfills. The source reduction, recycling, composting, special waste, and public education goals are defined by specific programmatic elements including tasks, roles, responsibilities, and an implementation schedule. The Source Reduction and Recycling Element provides a 10-year programmatic plan for solid waste diversion objectives between 1990 and 2000, in accordance with the requirement of AB 939. It has been updated annually and is based on an ongoing evaluation of programs and waste analysis. The plan establishes diversion objectives for specific programs and targeted generators that, in combination, could enable the City to exceed the 1995 and 2000 diversion objectives of the City of Los Angeles Solid Waste Management Policy Plan. It also presents an analysis of the projected 15-year disposal capacity requirements for the City of Los Angeles based on achieving the 1995 and 2000 diversion objectives of the Source Reduction and Recycling Element and, with continual increased diversion, the City of Los Angeles Solid Waste Management Policy Plan long-term diversion objectives. Guidance for, and implementation of, the solid waste diversion programs identified in the Source Reduction and Recycling Element are administered by the City of Los Angeles Department of Public Works, Bureau of Sanitation, Solid Resources Citywide Recycling Division.

Currently, the City is in the process of developing the Solid Waste Integrated Resources Plan, a 20-year master plan that would supersede the existing City of Los Angeles Solid Waste Management Policy Plan and achieve City's goal of becoming a zero waste city by 2030. The Solid Waste Integrated Resources Plan is expected to be completed in 2013.

Renew LA

In February 2006, the Los Angeles City Council adopted the Recovering Energy Natural Resources and Economic Benefit from Waste for Los Angeles (RENEW LA) as a guide for solid waste and resource

management for the City of Los Angeles over the next 20 years. The plan builds on key elements of existing programs and infrastructure, and combines them with new conversion technology to achieve an overall diversion rate of 90 percent or more by 2025. The plan seeks to achieve higher levels of resource recovery in the form of recyclables, soil amendments, renewable fuels, chemicals, green energy, and a reduction in the quantity of residue material disposed of in landfills. The efforts rely on the enhancement and growth of existing diversion programs, and the development of conversion technology facilities to process refuse that is currently not reused or recycled. RENEW LA predicts that by 2025 the City of Los Angeles will have seven conversion technology facilities, each with a capacity of up to 3,000 tons per day per facility for a combined capacity of 14,500 tons per day.

City of Los Angeles General Plan Framework

The City of Los Angeles GPF, adopted December 1996 and amended most recently in August 2001, is a long range, citywide, comprehensive growth strategy. The GPF includes policies related to public infrastructure and services. These policies address infrastructure and public service systems, many of which are interrelated and support the City's population and economy. The GPF includes policies that address deficiencies, including the expansion of public services and infrastructure commensurate with levels of demand.

Policies from the GPF related to solid waste generation are listed in Table 4.14-9 (General Plan Policies Relevant to Solid Waste).

Table 4.14-9 General Plan Policies Relevant to Solid Waste

No.	*Policy*
GENERAL PLAN FRAMEWORK—SOLID WASTE	
Policy 9.12.1	Prepare a 30-year policy plan that provides direction for the solid waste management decision-making process.
Policy 9.12.2	Establish citywide diversion objectives.
Policy 9.12.3	Define specific programmatic tasks, roles, and responsibilities for source reduction, composting, special waste, and public education goals, as well as an implementation schedule.
Policy CF.9.3	Promote advanced waste reduction and diversion methods for all wastewater and solid waste treatment, including the establishment of methane recovery facilities and the implementation of waste-to-energy projects where characteristics meet criteria for effective energy generation.

SOURCE: Los Angeles Department of City Planning, *The Citywide General Plan Framework: An Element of the City of Los Angeles General Plan*, Chapter 9: Infrastructure and Public Services Element (adopted August 8, 2001), CPC 94-0354 GPF CF 95-2259 CF 01-1162, http://cityplanning.lacity.org/cwd/framwk/chapters/09/09.htm (accessed July 20, 2009).

Proposed Plan Policies

Table 4.14-10 (Proposed San Pedro Community Plan Policies) lists policies of the proposed plan that are applicable to issues of Solid Waste.

Table 4.14-10 Proposed San Pedro Community Plan Policies

No.	*Policy*
Policy CF10.1	Recycling and waste reduction. Promote on-site facilities for recycling and waste reduction in single-family, multi-family, commercial and industrial development projects that support the transformation of waste disposal into resource recovery and economic development opportunities.
Policy CF10.2	Recycling of construction materials. Encourage recycling of construction material, both during construction and building operation. Encourage dismantling and reuse of materials rather than demolition and dumping.
Policy CF10.3	Adequate sites for facilities. Assist the Bureau of Sanitation in finding suitable sites for new solid waste facilities in the San Pedro CPA if necessary, addressing environmental justice issues.

Consistency Analysis

The proposed plan includes policies encouraging recycling and waste reduction, consistent with the policies contained in the City's GPF.

4.14.13 Project Impacts and Mitigation

Analytic Method

In preparing this EIR, projected solid waste generation was calculated using the generation factors provided by the L.A. CEQA Thresholds Guide and the land use data for current conditions and the proposed plan. The solid waste generated by reasonably expected capacity of the proposed plan is compared to City waste disposal capacity to assess the impact of the proposed plan on solid waste. Table 4.14-11 (Proposed Plan Solid Waste Generation) describes the anticipated solid waste generation from reasonably expected capacity of the proposed plan.

Table 4.14-11 Solid Waste Generation at Proposed Plan Reasonably Expected Capacity

		Existing Use		*Proposed Plan Reasonably Expected Capacity*		*Net Difference*	
Land Use	*Solid Waste Generation Rates*		*Solid Waste Generated (tons per day)*		*Solid Waste Generated (tons per day)*		*Net Change (tons per day)*
Residential	12.23 lbs/dwelling unit/day	29,911 du	182.9	34,731 du	212.4	4,820 du	29.5
Nonresidential	9.7 lbs/employee/day[a]	13,307 jobs	64.5	19,074	92.5	5,767 jobs	28
Total	—		*247.4*		*304.9*		*57.5*

SOURCE: City of Los Angeles, *L.A. CEQA Thresholds Guide* (2006).
a. Represents a blended generation rate of commercial and industrial uses.

The City of Los Angeles uses the following solid waste generation rates:

- Residential: 12.23 pounds per household per day
- Commercial: 10.53 pounds per employee per day
- Industrial: 8.93 pounds per employee per day[191]

[191] City of Los Angeles, *L.A. CEQA Thresholds Guide* (2006), p. M.3-2.

The Los Angeles CEQA Thresholds Guide (2006) sets forth guidance for the determination of significance of solid waste impacts. This guidance is based on CEQA Guidelines Appendix G and provides specific criteria to be considered when making a significance determination. In some cases, the Thresholds Guide includes quantitative thresholds. For purposes of this analysis, Thresholds Guide criteria are used, supplemented by the thresholds identified in Appendix G, where appropriate.

Thresholds of Significance

Implementation of the proposed plan may have a significant adverse impact on solid waste if it would:

- Result in the need for additional solid waste collection route, recycling, or disposal facility to adequately handle projected solid waste generation and disposal needs
- Conflict with federal, state, and local statutes and regulations related to solid waste, including solid waste policies and objectives in the SRRE or its updates, City of Los Angeles Solid Waste Management Policy Plan, Framework Element, or the Curbside Recycling Program.

Effects Not Found to Be Significant

There are no Effects Not Found to Be Significant with regard to solid waste.

Less-Than-Significant Impacts

Impact 4.14-6 **Implementation of the proposed plan would increase solid waste generation and result in the need for additional solid waste collection routes, recycling, or disposal facility to adequately handle projected solid waste generation and disposal needs. Implementation of mitigation measures MM4.14-6 through MM4.14-8 and compliance with federal, state, and local regulations would reduce this impact to *less than significant*.**

The CPA is located in an urban area of the City that is predominantly developed with residential uses. Less than 1 percent of the land within the CPA is currently undeveloped or vacant. The proposed plan and implementing ordinances would result in an increase of 4,820 dwelling units and 5,767 new jobs resulting from the 3.47 million sf of additional non-residential uses. This additional development would result in increased generation of solid waste.

The proposed plan and implementing ordinances would result in a maximum of 34,731 dwelling units in the CPA. Using the residential rate of 12.23 pounds per dwelling unit per day, the total estimated solid waste generation from all residential uses would be 212.4 tons per day. Based on the number of anticipated jobs in the CPA at reasonably expected capacity of the proposed plan, non-residential uses would generate 92.5 tons per day of solid waste. Total solid waste generation at reasonably expected capacity of the proposed plan would be approximately 304.9 tons per day, an increase of 57.5 tons per day compared to existing conditions. The Sunshine Canyon Landfill is permitted to receive 12,100 tons per day and currently receives 6,448 tons per day. Therefore, the Sunshine Canyon Landfill can receive an additional 5,652 tons per day before reaching capacity. The solid waste generated from reasonably expected capacity of proposed plan represents 5.4 percent of the remaining capacity of the landfill. If the entire 304.9 tons of solid waste generated by the proposed plan and implementing ordinances were disposed of in the Sunshine Canyon Landfill, the Sunshine Canyon Landfill would still have sufficient

permitted capacity to accommodate this contribution. Sunshine Canyon Landfill is estimated to close in 2043, which is beyond the planning horizon of 2030 for implementing the proposed plan. Development under the proposed plan would not result in the need for additional waste hauling routes, as it would be infill development in an already urbanized area and would not develop areas beyond its current service boundaries. The Commerce waste-to-energy facility has a capacity of 350 tons per day and the SERRF has a capacity of 1,380 tons per day. If all solid waste from the CPA were to be sent to these facilities, there is adequate remaining capacity in these facilities to accommodate it.

Existing GPF Element Policies 9.12.1 through 9.12.3 address solid waste issues by monitoring generation and implementing source reduction and diversion programs. These policies would apply to existing and proposed discretionary developments in the CPA. In addition, all future development requiring discretionary approval in the CPA would be subject to mitigation measures MM4.14-6 through MM4.14-8 that are required as conditions of approval for any discretionary project as well as project-specific mitigation. Further, future discretionary development would be subject to Policies CF10.1 and CF10.2, of the proposed plan, which promotes recycling and waste reduction Development pursuant to the proposed plan, would comply with all the diversion and recycling regulations of the state, County, and City and, therefore, would assist in the overall goal of reducing the amount of waste sent to landfills. Therefore, existing and proposed City policies and requirements would reduce these impacts to ***less than significant***.

Impact 4.14-7 **Development under the proposed plan would comply with federal, state, and local statutes and regulations related to solid waste. This impact is *less than significant*.**

The proposed plan and implementing ordinances could result in development and redevelopment of land uses that would generate solid waste. All solid waste-generating activities within the City of Los Angeles are subject to the requirements set forth in AB 939 and other local ordinances. Implementation of the proposed plan would be consistent with all waste reduction goals set forth by the Source Reduction and Recycling Element, City of Los Angeles Solid Waste Management Policy Plan, RENEW LA, and GPF, which are discussed above. All projects in the City undergo development review, which includes an analysis of project compliance with these programs. Therefore, future development permitted under the proposed plan would comply with all solid waste policies and objectives; impacts are less than significant, and no additional mitigation measures are required.

Mitigation Measures

The proposed plan contains programs and policies designed to reduce generation of solid waste. Development under the proposed plan would comply with all local, State, and federal regulations pertaining to solid waste. In addition to these programs and policies, the following mitigation measures shall be implemented for the proposed plan:

MM4.14-6 *Implement the Solid Waste Integrated Resources Plan to maximize source reduction and materials recovery and minimize the amount of solid waste requiring disposal with the goal of leading the City to achieve zero waste by 2025.*

MM4.14-7 *Encourage and provide incentives for the processing and marketing of recyclable items.*

MM4.14-8 *Accelerate ongoing efforts to provide alternative solid waste treatment processes and the expansion of existing landfills and establishment of new sites.*

Level of Significance After Mitigation

Implementation of the described measures would reduce impacts on solid waste to ***less than significant***.

4.14.14 Cumulative Impacts—Solid Waste

Cumulative impacts are only analyzed for those plan impacts that achieve a significance level of less-than-significant or higher. Therefore, thresholds with no impact will not be analyzed in this section.

The geographic context for this cumulative analysis is the City of Los Angeles, as served by the Sunshine Canyon Landfill. Past development in the City has led to a substantial amount of solid waste requiring disposal in area landfills and has required expansion of some of these facilities. New ordinances have been implemented and recycling and waste-to-energy facilities constructed to help divert solid waste generated by development. Future cumulative development would be subject to all current ordinances and standard mitigation to reduce solid waste. However, given the statewide shortage of solid waste facilities and the shortage of available land to accommodate them, other communities not currently utilizing area landfills may in the future contribute solid waste to City landfills. The proposed plan could result in growth in the CPA and could result in increased solid waste generation. All new development would be required to comply with General Plan policies, the SSRE, and other federal, state, and local statutes. Compliance with these requirements would reduce future development occurring under the proposed plan's contribution of solid waste to less than cumulatively considerable. Therefore, the cumulative impact is ***less than significant***.

The geographic context for this cumulative analysis is the City of Los Angeles, as served by the TITP. Past development in the City of Los Angeles has been required to comply with all federal, state, and local statutes and regulations related to solid waste, as confirmed through the development review process. Future development would similarly be required to comply with these regulations, and the cumulative impact would not be significant. Development under the proposed plan would continue to comply with all provisions of the AB 939, as enforced by CalRecycle and LABS. Therefore, implementation of the proposed plan would not result in violation of solid waste regulations. Therefore, the cumulative impact is ***less than significant***.

4.14.15 References—Solid Waste

California Integrated Waste Management Board. Countywide, Regionwide, and Statewide Jurisdiction Diversion Progress Report, August 31, 2009. http://www.calrecycle.ca.gov/LGCentral/DivMeasure/StepByStep.htm.

Los Angeles Department of City Planning. *City of Los Angeles General Plan*. Infrastructure and Public Services Element. http://cityplanning.lacity.org/cwd/framwk/chapters/09/09.htm (accessed July 20, 2009).

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Los Angeles Department of Public Works, Bureau of Sanitation. Fact Sheet: Solid Waste Facilities—The System Infrastructure. http://www.zerowaste.lacity.org/files/info/fact_sheet/SWIRPfacilitySystemInfrastructureFactSheet_032009.pdf.

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Southern California Conversion Technology Demonstration Project, The. Vision. http://www.socalconversion.org/vision.html (accessed 2009).

Sunshine Canyon Landfill. *Final Annual Report, Calendar Year 2009*, June 1, 2010.

Energy

This section describes energy demand, including gas and electricity, and infrastructure within the San Pedro CPA and analyzes the potential physical environmental effects related to energy demand impacts created by construction of new or additional facilities associated with implementation of the proposed plan.

Data for this section were taken from variety of sources. Full reference-list entries for all cited materials are provided in Section 4.14.20 (References).

4.14.16 Environmental Setting

Electricity

Energy consumption, including electricity, by new buildings in California, is regulated by the state Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations (CCR). The efficiency standards apply to new construction of both residential and nonresidential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings, provided that these standards meet or exceed those provided in Title 24 guidelines.

The LADWP supplies more than 24.8 million megawatt (Mw) hours of electricity a year for the City of Los Angeles's 1.4 million customers.[192,193] The utility was established more than 100 years ago to provide water and electric needs to the City's businesses and residents. LADWP serves a 465-square-mile area and is the largest municipal utility in the nation.

The power supply sources include 44 percent from coal, 26 percent from natural gas, 7 percent from large hydroelectric, 9 percent from nuclear, and 14 percent from renewable, which include small hydroelectric, solar, wind, geothermal, biomass, and waste.[194]

Natural Gas

Southern California Gas Company (SoCalGas), a subsidiary of Sempra Energy and the nation's largest natural gas distribution utility, distributes natural gas to 20.7 million residential, commercial, and industrial customers through 5.8 million meters in more than 500 communities. The company's service territory encompasses approximately 20,000 square miles in diverse terrain throughout Central and Southern California, from Visalia to the Mexican border.[195]

In 2009, 2,621 million cubic feet (MMcf) per day of natural gas was supplied by SoCalGas, divided as follows: 940 MMcf per day for core customers, 1,226 MMcf per day for non-core customers, 412 MMcf per day for wholesale or international customers, and 43 MMcf per day for SoCalGas use or lost and unaccounted for (LUAF).[196] Natural gas service is provided in accordance with SoCalGas's policies and extension rules on file with the California Public Utilities Commission (PUC) at the time contractual agreements are made.

As a public utility, SoCalGas is under the jurisdiction of the PUC, but can be affected by the actions of federal regulatory agencies. Should these agencies take any action affecting natural gas supply or the conditions under which service is available, natural gas service would be provided in accordance with those revised conditions.

The 2010 California Gas Report has projections regarding future demand for natural gas in the southern California region. SoCalGas predicts gas demand to contract at an annual average rate of approximately 0.2 percent from 2010 to 2030. Demand is expected to be virtually flat for the next 21 years due to modest economic growth, CPUC-mandated DSM goals and renewable electricity goals, decline in commercial and industrial demand, and savings linked to advanced metering modules. The forecasted contraction in demand is caused by the slump in the housing market for the next few years, a reduced employment forecast, a higher gas price projection, and aggressive energy efficiency savings goals.[197]

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[192] Los Angeles Department of Water and Power, Our Service and History, http://www.ladwp.com/ladwp/cms/ladwp000508.jsp (accessed February 10, 2009).
[193] Los Angeles Department of Water and Power, Quick Facts and Figures, http://www.ladwp.com/ladwp/cms/ladwp000509.jsp (accessed January 6, 2011).
[194] Los Angeles Department of Water and Power, Quick Facts and Figures, http://www.ladwp.com/ladwp/cms/ladwp000509.jsp (accessed January 6, 2011).
[195] Southern California Gas Company, Company Profile, http://www.socalgas.com/aboutus/profile.html (accessed January 27, 2011).
[196] California Gas and Electric Utilities, *California Gas Report 2010* (2010).
[197] California Gas and Electric Utilities, *California Gas Report 2010* (2010).

4.14.17 Regulatory Framework

Federal

The Federal Energy Regulatory Commission (FERC) duties include the regulation of the transmission and sale of electricity in interstate commerce, licensing of hydroelectric projects, and oversight of related environmental matters.

State

California Public Utilities Commission (CPUC)

CPUC Decision 95-08-038 contains the rules for the planning and construction of new transmission facilities, distribution facilities, and substations. The Decision requires permits for the construction of certain power line facilities or substations if the voltages would exceed 50 kV or the substation would require the acquisition of land or an increase in voltage rating above 50 kV. Distribution lines and substations with voltages less than 50 kV need not comply with this Decision; however, the utility must obtain any nondiscretionary local permits required for the construction and operation of these projects. CEQA compliance is required for construction of facilities constructed in accordance with the Decision.

Title 20 and Title 24, California Code of Regulations (CCR)

Title 20 (Public Utilities and Energy) contains the regulations related to power plant siting certification. Title 24 (California Building Standards) contains the energy efficiency standards related to residential and nonresidential buildings. Title 24 standards are based, in part, on a state mandate to reduce California's energy demand.

Local

City of Los Angeles General Plan Framework

The City of Los Angeles GPF, adopted December 1996 and amended most recently in August 2001, is a long range, citywide, comprehensive growth strategy. The GPF includes policies related to public infrastructure and public services. These policies address infrastructure and public service systems, many of which are interrelated and support the City's population and economy. The GPF includes policies that address deficiencies, including the expansion of public services and infrastructure commensurate with levels of demand.

Policies from the GPF related to power are listed in Table 4.14-12 (General Plan Policies Relevant to Energy).

Table 4.14-12 General Plan Policies Relevant to Energy	
No.	***Policy***
GENERAL PLAN FRAMEWORK—POWER	
Policy 9.26.1	The Los Angeles Department of Water and Power (LADWP) shall continue to monitor and forecast its customers' peak load on its system and identify which parts of the system should be upgraded to accommodate expected growth.
Policy 9.27.1	The LADWP shall continue to generate or purchase electric power to serve its customers.
Policy 9.28.1	The LADWP shall continue to plan its power supply capability far enough in advance to ensure that it has available capacity to meet customer demand before it is needed.
Policy 9.28.2	The LADWP shall continue to ensure that the City's transmission and distribution system is able to accommodate future peak electric demand for its customers.
Policy 9.28.3	The LADWP shall continue to advise the Planning and Building and Safety Departments of any construction project that would overload a part of the distribution system during a period of peak demand.
Policy 9.29.1	Develop and deliver services to attract, assist, and retain industries and businesses in Los Angeles.
Policy 9.29.2	Promote the responsible use of natural resources, consistent with City environmental policies.
Policy 9.29.3	Promote conservation and energy efficiency to the maximum extent that is cost effective and practical, including potential retrofitting when considering significant expansion of existing structures.
Policy 9.29.4	Provide incentives for the development of cleaner and more energy-efficient industrial development.
Policy 9.29.5	Deliver to all sectors of the economy customer service programs, products and activities that promote satisfaction and value related to the provision of electric power.
Policy 9.29.6	Encourage additional markets for electrical energy, such as environmentally friendly alternative fuel for transportation in electric buses and light-duty vehicles.
Policy 9.30.1	The LADWP shall periodically examine its emergency response programs to ensure continued electrical service.

SOURCE: Los Angeles Department of City Planning, *The Citywide General Plan Framework: An Element of the City of Los Angeles General Plan*, Chapter 9: Infrastructure and Public Services Element (adopted August 8, 2001), CPC 94-0354 GPF CF 95-2259 CF 01-1162, http://cityplanning.lacity.org/cwd/framwk/chapters/09/09.htm (accessed July 20, 2009).

Proposed Plan Policies

Table 4.14-13 (Proposed San Pedro Community Plan Policies) lists policies of the proposed plan that are applicable to issues of Energy.

Table 4.14-13 Proposed San Pedro Community Plan Policies	
No.	***Policy***
Policy CF12.1	Coordinate with LADWP. Work with LADWP to ensure that adequate electrical facilities are available to meet the demand of existing and future developments and to ensure conservation techniques are integrated into new and existing development projects.
Policy CF12.2	Compatible design. Power system facilities, including receiving and distributing stations, should be designed and constructed so that they will harmonize with their surroundings as much as practicable.
Policy CF12.3	Undergrounding of electrical facilities. Provide for the undergrounding of new and existing electrical distribution lines unless it is determined not to be economically or practically feasible as a result of significant environmental or other constraints.
Policy CF12.4	Easements. Protect the use of public utility easements, rights-of-way, and land set-asides to ensure adequate electrical facilities for current and future demand.

Table 4.14-13 Proposed San Pedro Community Plan Policies

No.	*Policy*
Policy CF12.5	Renewable energy sources. Support efforts to promote the use of clean, renewable energy that is diverse in technology and location to decrease dependence on fossil fuels, reduce emissions of greenhouse gases and increase reliability of power supply.
Policy CF13.1	Efficient and safe street lighting. Ensure efficient and effective energy management while providing appropriate levels of lighting to meet safety needs.
Policy CF13.2	Enhanced pedestrian lighting. Ensure that street lighting designs meet minimum standards for quality lighting to provide appropriate pedestrian visibility for usage of streets and sidewalks in commercial centers and neighborhood districts, and enhance the pedestrian oriented character of these districts.

Consistency Analysis

The proposed plan and implementing ordinances will replace the existing 1999 San Pedro Community Plan. Energy generation is directly related to electricity and natural gas consumption, and energy efficiency and conservation efforts results in lower generation of energy. The policies contained in the proposed plan pertaining to energy require energy efficiency that would limit wasteful usage of electricity and natural gas. These policies are entirely consistent with General Plan policies relative to energy usage. While the proposed plan would allow growth, discretionary development under the proposed plan would be required to comply with these policies and all local, State and federal regulations pertaining to electricity and natural gas, which would reduce energy usage and, therefore, energy generation. All new development would also be required to comply with Title 24 requirements. Therefore, the proposed plan would be consistent with the identified GPF policies.

4.14.18 Project Impacts and Mitigation

Analytic Method

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

The Los Angeles CEQA Thresholds Guide (2006) sets forth guidance for the determination of significance of energy impacts. This guidance is based on CEQA Guidelines Appendix G and provides specific criteria to be considered when making a significance determination. In some cases, the Thresholds Guide includes quantitative thresholds. For purposes of this analysis, Thresholds Guide criteria are used, supplemented by the thresholds identified in Appendix G, where appropriate.

Thresholds of Significance

Implementation of the proposed plan may have a significant adverse impact on energy if it would:

- Require new energy-supply facilities and distribution infrastructure or capacity-enhancing alterations to existing facilities to accommodate projected energy demand, the construction of which could cause a significant environmental impact

Less-Than-Significant Impacts

Impact 4.14-8 **Implementation of the proposed plan could require new energy-supply facilities and distribution infrastructure or capacity-enhancing alterations to existing facilities to accommodate projected energy demand, the construction of which could cause a significant environmental impact. Implementation of mitigation measures MM4.14-9 through MM4.14-12and compliance with local, state, and federal regulations would reduce this impact to *less than significant*.**

Electricity

The CPA is served by electric distribution lines that are present on almost all streets and/or back property lines and are too numerous to describe individually. System voltages of these lines may be 34.5 kilovolt (kV), 4.8 kV, and less than 600 volt. The LADWP does not release maps of distribution lines. The CPA is served by the Harbor Receiving Station located at 150 Island Avenue and has an ultimate firm capacity of 400 MVA. The LADWP routinely plans capacity additions and changes at existing and new facilities as needed to supply area load.[198]

Implementation of the proposed plan would increase the use of electricity within the CPA, to light, heat, and air condition the future development under the proposed plan. Based on the information provided in Table 4.14-14 (Projected Electricity Demands), the total annual electricity consumption by the proposed plan is estimated to be approximately 265,929,353 kWh/year, or an increase of 11,684,446 kWh/year over existing demand.

Table 4.14-14 Projected Electricity Demands

		Existing Designations		*Proposed plan Reasonably Expected Capacity*		*Net Difference*	
Land Use	*Electricity Generation Rates (kWh/sf/year)*		*Electricity Generated (kWh/year)*		*Electricity Generated (kWh/year)*		*Electricity Generated (kWh/year)*
Electricity							
Residential	5,172 kWh/du/year	29,911 du	154,699,692	34,731 du	179,628,732	4,820 du	24,929,040
Commercial*	16.2 kWh/sf/year	5,202,554 sf	84,281,374	3,412,300 sf	55,279,260	(1,790,254)	(29,002,114)
Industrial	5.3 kWh/sf/year	2,879,970 sf	15,263,841	5,853,087 sf	31,021,361	2,973,117	15,757,520
Total	—	—	*254,244,907*	—	*265,929,353*	—	*11,684,446*

SOURCE: Southern California Air Quality Management District, *CEQA Air Quality Handbook* (1993).
du = Dwelling Unit KWh = kilowatt-hour; sf = square feet
Consumption Rates: 5,172kwh/unit/yr for residential; 17.1khw/sf/yr for office; 15.3khw/sf/yr for retail; & 5.3kwh/sf/yr for industrial
* Commercial generation rates based on an average of office and retail with an average generation rate of 16.2khw/sf/yr

The LADWP has stated there are no current service problems or deficiencies. Service reliability levels are most significantly influenced by severe weather and physical topography. Local and regional area

[198] Charles C. Holloway, written correspondence with Manager of Environmental Assessment and Planning, Los Angeles Department of Water and Power (June 23, 2009).

reliability is assessed over time to determine service reliability trends within the area. Because of these variations, standard criteria are often ineffective for determining the acceptability of a specific area's performance. LADWP also stated that the proposed plan and implementing ordinances would create demand for electricity that would result in a need for additional resources as described in LADWP's IRP. They also indicated that additional distribution facilities would be required to supply forecast future electric power demand in the CPA. The specific new infrastructure that would be required is unknown at this time and is highly dependent on the actual rate and level of future development density increases in the CPA. Assuming that future power system infrastructure and resources are implemented as needed to supply future CPA requirements, LADWP has stated that the proposed plan and implementing ordinances would not impact service reliability levels.[199] However, increasing energy conservation and incorporation of alternative renewable energy sources (solar) into project designs are anticipated to substantially reduce demand for electricity.

Existing GPF Element Policies 9.26.1, 9.27.1, 9.28.1 through 9.28.3, 9.29.1 through 9.29.6, and 9.30.1 address how LADWP serves the City of Los Angeles with power, promotes responsible use of natural resources, conservation, and energy efficiency. These policies would apply to existing and proposed discretionary development in the CPA. In addition, mitigation measures MM4.14-9 through MM4.14-12 would apply to future development in the CPA. Finally, future development occurring under the CPA would be required to comply with Title 24 of the CCR requiring building energy efficiency standards. Therefore, impacts are *less than significant*.

Natural Gas

The entire CPA is within the service territory of SoCalGas, which operates a natural gas distribution system in the area currently, and is capable of expanding the system by providing gas service to the planned area without disruption to the existing system. Maps of the distribution systems infrastructure are proprietary information and, as such, are not available. Adequate gas supplies exist to provide service to the CPA. If new or extended natural gas lines are required to serve future development, such infrastructure would be located underground and would be constructed in accordance with SCGC's policies and extension rules on file with the CPUC at the time contractual agreements are made. Any new infrastructure would be determined on a project-by-project basis.[200]

Based on the information provided in Table 4.14-15 (Projected Natural Gas Demand), the total annual natural gas consumption resulting from reasonably expected capacity of the proposed plan is estimated to be approximately 1,965,016,561 MMcf /year or increase of 291,719,086 MMcf /year over existing uses.

Existing GPF Element Policies 9.29.2 through 9.29.4 promote responsible use of natural resources, conservation, and energy efficiency, especially in development of industrial uses. These policies would apply to existing and proposed discretionary development in the CPA. In addition, mitigation measures MM4.14-9 through MM4.14-12 would apply to future development requiring discretionary approval in

[199] Charles C. Holloway, written correspondence with Manager of Environmental Assessment and Planning, Los Angeles Department of Water and Power (June 23, 2009).
[200] Christopher Baker, written correspondence with Region Associate Engineer, Southern California Gas Company (April 3, 2009).

the CPA. Finally, future development under the proposed plan would be required to comply with Title 24 of the CCR requiring building energy efficiency standards. Because the natural gas demand projected for reasonably expected capacity of the proposed plan would not exceed available or planned supply, new infrastructure would not be required to serve the CPA, other than localized connections and improvements, which would not be anticipated to have significant environmental impacts. Therefore, this impact is *less than significant*.

Table 4.14-15 Projected Natural Gas Demand

		Existing Designations		*Proposed Plan Reasonably Expected Capacity*		*Net Difference*	
Land Use	*Natural Gas Generation Rates (cf/sf/year)**		*Natural Gas Generated (MMcf/year)*		*Natural Gas Generated (MMcf/year)*		*Natural Gas Generated (MMcf/year)*
Natural Gas							
Residential	47,016 cf/du/year	29,911 du	1,406,295,576	34,731 du	1,632,912,696	4,820 du	226,617,120
Commercial**	29.4 cf/sf/year	5,202,554 sf	152,955,080	3,412,300 sf	100,321,620	(1,790,254)	(52,633,467)
Industrial	39.6 cf/sf/year	2,879,970 sf	114,046,812	5,853,087 sf	231,782,245	2,973,117	117,735,433
Total	—	—	*1,673,297,468*	—	*1,965,016,561*	—	*291,719,086*

SOURCE: Southern California Air Quality Management District, *CEQA Air Quality Handbook* (1993).
cf = cubic feet, du = Dwelling Unit, MMcf = million cubic feet, sf = square feet
Consumption Rates: 3,918cf/unit/mo for residential; 2.0cf/sf/mo for office; 2.9cf/sf/mo for retail; & 3.3 cf/sf/mo for industrial
* Monthly rates were multiplied by 12 to determine yearly consumption
** Commercial generation rates based on an average of office and retail with an average generation rate of 2.45 cf/sf/mo

Mitigation Measures

The proposed plan contains programs and policies to reduce energy demand and further compliance with Title 24. In addition to these programs and policies, the following mitigation measures shall be implemented for the proposed plan:

MM4.14-9 *Promote energy conservation and efficiency to the maximum extent that are cost effective and practical.*

MM4.14-10 *Encourage and provide incentives for the development and use of alternative sources of energy.*

MM4.14-11 *Adopt and implement a program to provide technical assistance and incentives to property owners and developers on building design and/or the use of energy-efficient systems in new residential, commercial and industrial developments to exceed existing State of California Energy Code standards.*

MM4.14-12 *Promote the responsible use of natural resources in accordance with City environmental policies.*

Level of Significance After Mitigation

With implementation of the described measures, impacts relating to energy are *less than significant*.

4.14.19 Cumulative Impacts—Energy

Cumulative impacts are only analyzed for those plan impacts that achieve a significance level of less-than-significant or higher. Therefore, thresholds with no impact will not be analyzed in this section.

The geographic context for this cumulative analysis is the City of Los Angeles, as served by LADWP and SoCalGas. As new projects are developed, energy-conservation measures will be employed. For example, all new projects constructed in the City of Los Angeles are required to conform to the energy conservation standards specified in Title 24 of the CCR, and many individual projects include other energy conservation measures. LADWP has completed the final draft of the IRP, which is a high-level plan that established the overall strategic course of the power system for the next 20 years. The 20-year framework is to ensure that LADWP meets the future energy needs in their service area. The annual peak demand over the next 20 years is predicted to be about approximately 100 MW per year (an increase of approximately 1.3 percent per year) with less growth over the next few years due to the current recession.[201] It is anticipated that the electricity demand generated by future development could be supplied without the need for additional construction or expansion of energy facilities beyond that which was previously planned. Because LADWP is able to meet future projected demands, and an action plan has been identified to address energy issues on a broader scale, cumulative impacts would be less than significant. The plan's cumulative impact is ***less than significant***.

With regard to natural gas, development in the geographic area surrounding the CPA would result in continued use of this resource. The CPA is currently served by existing infrastructure that future development projects would also use. The SCGC has stated that it can supply natural gas without jeopardizing other service commitments. As such, the plan's cumulative impact is ***less than significant***.

4.14.20 References—Energy

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[201] Los Angeles Department of Water and Power, *2010 Power Integrated Resources Plan Final Draft* (November 2010), http://www.lapowerplan.org/documents/final_draft/IRP_Final_Draft_w_Appendices.pdf (accessed November 22, 2010), p. 2.2.

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