

4.14 UTILITIES/SERVICE SYSTEMS

This section of the EIR analyzes the potential environmental effects on utilities/service systems from implementation of the proposed Granada Hills–Knollwood Community Plan and implementing ordinances and the proposed Sylmar Community Plan and implementing ordinances (proposed plans). 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.

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 in the Granada Hills–Knollwood and Sylmar Community Plan Areas (CPAs), 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 Granada Hill-Knollwood and Sylmar CPAs, 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 plans.

Data for this section were taken from a variety of sources, including the City of Los Angeles General Plan and the City of Los Angeles Department of Water and Power (LADWP). 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 CPAs are located within the City of Los Angeles, and, as such, the LADWP is the water provider to the CPAs. For the fiscal year of 2010/11, City water supplies were

derived from the following sources (over a 5-year average): (1) the Los Angeles Aqueduct (owned and operated by LADWP), approximately 36 percent; (2) groundwater, approximately 11 percent; (3) purchases from the Metropolitan Water District of Southern California (MWD), approximately 52 percent; and (4) recycled water (for industrial and irrigation purposes), approximately 1 percent.¹⁶⁰ 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.¹⁶¹

Groundwater

The City has appropriative rights to extract up to 107,408 acre-feet per year (afy) (~35.0 billion gallons per year) from the San Fernando Basin, Sylmar, Eagle Rock as well as the Central and West Coast groundwater basins. The LADWP's entitlements in the San Fernando, Sylmar, and Eagle Rock Basins were established in a Judgment by the Superior Court of the State of California for the County of Los Angeles in Case No. 650079, dated January 26, 1979 (San Fernando Judgment) and the 1984 Sylmar Basin Stipulation (1984 Stipulation). As a result of the San Fernando Judgment, the LADWP had a stored water credit of nearly 406,313 af in the San Fernando Basin (October 2009); however, LADWP's maximum allowable withdrawal of stored water credits for the year beginning October 1, 2009 was 108,574 af. LADWP's Reserve Credits was 321,316 af. Reserve Credits (stored water credits minus available stored water credits) will not be available until groundwater levels in the basin recover to a level that will allow for their safe withdrawal. Total Reserve Credits held by all parties in the basin were 376,433 af as of October 1, 2009.¹⁶² LADWP can extract 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.

Recycled Water

The LADWP is continuing its water recycling efforts to reduce further the demand on using imported water. Currently, almost 65,000 afy of the City's wastewater is recycled. As of 2009/2010 approximately 6,700 afy of recycled water is used for municipal and industrial purposes; 25,000 afy of recycled water is used for environmental enhancement and recreation. LADWP plans on increasing its production and distribution of recycled water every year. By 2015, recycled water use in LADWP service area is expected to increase to almost 50,000 af, by 2025 recycled water use is expected to reach nearly 72,000 af and as presented in its 2010 UWMP, recycled water use is expected to be almost 89,000 af.

¹⁶⁰ Los Angeles Department of Water and Power, Quick Facts and Figures, <http://www.laLADWP.com/laLADWP/cms/laLADWP000509.jsp> (accessed January 6, 2011).

¹⁶¹ City of Los Angeles, *L.A. CEQA Thresholds Guide* (2006).

¹⁶² Los Angeles Department of Water and Power, *2010 Urban Water Management Plan* (June 2011), p. 124.

■ Water Treatment Plant

The primary water treatment plant serving the general Los Angeles area and the project area is the Los Angeles Aqueduct Filtration Plant (LAAFP), which is located in Sylmar. The LAAFP has a design capacity of 600 million gallons per day (mgd).¹⁶³ The average plant flow is 450 mgd in nonsummer months, and 550 mgd during summer months. The average over the year is 475 mgd and operates between 75 and 92 percent capacity. The remaining capacity of the LAAFP is, therefore, approximately 125 mgd or 21 percent of its total capacity. In April 2011, LADWP began construction of a new ultraviolet (UV) water treatment facility at the LAAFP. The UV facility will add an advanced level of protection to the LADWP's treatment process to comply with new water quality regulations established by the United States Environmental Protection Agency.

■ 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, along with efforts by MWD to diversify its sources of supply and increase storage of water within its service area to enhance the reliability of its two main sources. 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 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. LADWP has worked with MWD in developing a framework for allocating water supplies during periods of shortage as well as surplus. MWD has a Water Surplus and Drought Management Plan that provides such a framework. LADWP intends to work within the framework established through the Water Surplus and Management Plan in acquiring its drought supplies from MWD in the future. 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. Additionally, MWD has more than approximately 3.8 Tcf of

¹⁶³ Charles C. Holloway, written correspondence with Manager of Environmental Assessment and Planning, Los Angeles Department of Water and Power (June 23, 2009).

storage capacity available in reservoirs and banking/transfer programs. 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.¹⁶⁴ However, constraints have developed over the years that restrict MWD's access to Colorado River supplies. The Limitation Act of 1929 set California's consumptive use of Colorado River water at 4.4 Maf per year, plus not more than one-half of any excess or surplus waters unapportioned by the Colorado River Compact. Under its contract with the federal government, MWD has a basic entitlement of 550 thousand acre-feet (Taf) per year of Colorado River water, which is the fourth of four priority allotments designated for the state of California. MWD also holds a fifth priority for an additional 662 Taf per year that exceeds California's 4.4 Maf per year basic apportionment, and another 180 Taf per year when surplus flows are available.¹⁶⁵ 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 2030.¹⁶⁶ 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.

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).¹⁶⁷ According to the contract, MWD is entitled to receive 1,911 Taf per year from the SWP.¹⁶⁸ 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.¹⁶⁹ 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 the availability of SWP supplies using the Final 2011 DWR reliability report as this presents DWR's current estimate of the amount of SWP water deliveries for current (2012) conditions and conditions 20 years into the future.¹⁷⁰ MWD estimated that

¹⁶⁴ Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).

¹⁶⁵ Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).

¹⁶⁶ Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).

¹⁶⁷ 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.

¹⁶⁸ Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).

¹⁶⁹ Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).

¹⁷⁰ California Department of Water Resources, *Final Delivery Reliability Report 2011* (June 2012).

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.¹⁷¹

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.¹⁷² 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 (See discussion of LADWP'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 updated IRP strikes a balance through a three-component approach: (1) a core resources strategy representing baseline efforts to manage water supply and demand conditions and to stabilize MWD's traditional imports; (2) a cost-effective "supply buffer" to enable the region to adapt to future circumstances and foreseeable challenges; and (3) foundational actions to guide the region in determining alternative supply options for long-range planning.¹⁷³ The report concludes that "the options presented in this IRP Update are projected to meet the future water supply needs of Southern California."¹⁷⁴

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:** MWD has invested more than \$268 million in conservation programs and initiatives over the past 20 years, including executing a 10-year residential master conservation

¹⁷¹ Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).

¹⁷² 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).

¹⁷³ 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).

¹⁷⁴ Metropolitan Water District of Southern California, *Integrated Water Resources Plan 2010 Update* (October 2010), Report No. 1373.

funding agreement with member agencies, installing over 2.7 million high-efficiency toilets, strengthening outdoor conservation programs and introducing new Industrial Process Improvement programs. 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.¹⁷⁵

- **Local Resources—Recycling, Groundwater Recovery, and Seawater Desalination:** MWD has invested more than \$347 million with its member agencies to develop local resource programs. 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.¹⁷⁶
- **Central Valley Storage and Transfer Programs:** MWD has developed significant water storage and transfer program partnerships in the Central Valley and has witnessed increased cooperation with DWR and federal agencies to facilitate water transfers. 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.¹⁷⁷
- **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. Workshops were held in 2008 to discuss these challenges and develop recommendations. 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.¹⁷⁸

Summary of MWD Water Supply Reliability

MWD has engaged in significant water supply projection and planning efforts. Those efforts have included the water demands of the LADWP 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 2035.¹⁷⁹ 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. As such, MWD continues to state that its water supplies are fully reliable to meet the demands of its customers, in all hydrologic conditions through at least 2030.

¹⁷⁵ Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).

¹⁷⁶ Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).

¹⁷⁷ Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).

¹⁷⁸ Metropolitan Water District of Southern California, *Regional Urban Water Management Plan* (November 2010).

¹⁷⁹ 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 LADWP 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 of Los Angeles to reduce dependence on imported supplies. It includes: investments in state-of-the-art technology; a combination of rebates and incentives; the installation of smart sprinklers, efficient washers, and urinals; and long-term measures such as expansion of water recycling and investment in cleaning up the local groundwater supply.¹⁸⁰ The Action Plan also takes into account the realities of climate change and the dangers of drought and dry weather.

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.¹⁸¹ 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.¹⁸²

The Action Plan also specifically addresses current and future SWP supply shortages. LADWP estimates that the Federal Court decision on Delta smelt will limit MWD exports of their anticipated SWP supply by up to 30 percent.¹⁸³ 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 “[d]espite 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.”¹⁸⁴ In total, this reserve of water supplies buffers the severity of a potential shortage.¹⁸⁵ 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 (LADWP Action Plan Short- and Long-Term Conservation Strategies).

■ Revisions to the Emergency Water Conservation Ordinance

As an initial step toward implementing the Short-Term Conservation Strategies of the Water Supply Action Plan described above, LADWP revised the City's existing Emergency Water Conservation Ordinance.¹⁸⁶ Approved by the LADWP Board of Commissioners on June 4, 2008, these revisions discourage water waste by expanding prohibited uses of water and increasing the penalties for violations.

¹⁸⁰ Los Angeles Department of Water and Power, *Securing L.A.'s Water Supply* (May 2008), p. 1.

¹⁸¹ Los Angeles Department of Water and Power, *Securing L.A.'s Water Supply* (May 2008), p. 1.

¹⁸² Los Angeles Department of Water and Power, *Securing L.A.'s Water Supply* (May 2008), p. 1.

¹⁸³ Los Angeles Department of Water and Power, *Securing L.A.'s Water Supply* (May 2008), p. 8.

¹⁸⁴ Los Angeles Department of Water and Power, *Securing L.A.'s Water Supply* (May 2008), p. 8.

¹⁸⁵ Los Angeles Department of Water and Power, *Securing L.A.'s Water Supply* (May 2008), p. 8.

¹⁸⁶ City of Los Angeles, Emergency Water Conservation Ordinance No. 166,080 (effective July 25, 1990).

The ordinance, first instituted in the drought of 1990, allows officials to cite and fine water wasters for activities such as watering during expanded daytime hours, washing down sidewalks and other pavement, automatically serving drinking water at restaurants without the customer's request, allowing excess water to flow from lawns and other practices. New changes include doubling existing monetary fines for residential customers (meters smaller than 2 inches) from \$50 for a first offense to \$100 and quadrupling existing monetary fines from \$50 to \$200 for a first offense for large customers, including businesses (meters 2 inches and larger).¹⁸⁷

LADWP also enforces the ordinance through its Drought Buster Team. Previously, the Drought Busters patrolled the city to remind customers wasting water of the prohibited uses and provide a tip sheet on simple ways to cut waste. Now, the Drought Busters will issue citations to offending property owners or occupant. First time offenders will get a warning, but repeat offenders will be fined on a sliding scale depending upon the rate and magnitude of the waste. The fine will appear as a charge on the customer's LADWP water bill. Appeals will come directly to the Board of Water and Power Commissioners.¹⁸⁸

The ordinance takes a phased approach to prohibited uses, allowing the Department to expand phases depending on severity of water supply conditions. Phase I seeks compliance of fourteen prohibited uses and will be permanent, enforceable 24 hours a day, 12 months a year. Implementation of Phases II and subsequent phases will occur upon the assessment of the Board of Water and Power Commissioners of the city's water supply. Under Phase II, for example, the city will institute nonwatering days, leaving Monday, Thursday, or Saturday as permissible days to irrigate landscaping. Under Phase III, watering outdoors will be cut back an additional day to Mondays and Thursdays only.¹⁸⁹ On August 18, 2010, the City Council approved changes to the updated ordinance to simplify the phases and change the outdoor sprinkler watering schedules.¹⁹⁰

¹⁸⁷ Los Angeles Department of Water and Power, News Release: LALADWP Strengthens Water Use Ordinance to Encourage Conservation (June 4, 2008), <http://www.laLADWPnews.com/go/doc/1475/204815/>.

¹⁸⁸ Los Angeles Department of Water and Power, News Release: LALADWP Strengthens Water Use Ordinance to Encourage Conservation (June 4, 2008), <http://www.laLADWPnews.com/go/doc/1475/204815/>.

¹⁸⁹ Los Angeles Department of Water and Power, News Release: LALADWP Strengthens Water Use Ordinance to Encourage Conservation (June 4, 2008), <http://www.laLADWPnews.com/go/doc/1475/204815/>.

¹⁹⁰ Los Angeles Department of Water and Power, News Release: Los Angeles City Council Approves Changes to City Water Conservation Ordinance (August 18, 2010), <http://www.laLADWPnews.com/go/doc/1475/855027/>.

Table 4.14-1 LADWP 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, LADWP 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. LADWP 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. LADWP 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, LADWP vehicle placards, newspapers, radio, and television, among other types of media; outreach to Homeowner Associations and Neighborhood Councils to promote water conservation; train LADWP 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:* LADWP 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:* LADWP 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:
 - High Efficiency Clothes Washer Program. LADWP increased the rebate offered for residential high efficiency clothes washers from \$150 to \$250. LADWP 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.
 - 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). LADWP 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 LADWP Action Plan Short- and Long-Term Conservation Strategies

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

- 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.
- 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, LADWP will continue to distribute water-saving bathroom and kitchen faucet aerators and shower heads free-of-charge. LADWP 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. LADWP 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:* LADWP 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 LADWP, 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:* LADWP 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.** LADWP 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.** LADWP'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.** LADWP 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 LADWP 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. LADWP 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 LADWP 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 LADWP 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 LADWP 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—LADWP 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 LADWP 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; LADWP 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 (LADWP funded).
 - > Resources: LADWP 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 LADWP Action Plan Short- and Long-Term Conservation Strategies

- > Budget: \$1.3 million for design; \$20 million for construction (LADWP 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—LADWP's annual allocation of San Fernando Valley groundwater supplies. LADWP 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:** LADWP 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, LADWP 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):** LADWP 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 (LADWP funded).
 - > Resources: LADWP 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:** LADWP 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 (LADWP funded)
 - > Resources: LADWP 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:** LADWP 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. LADWP 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. LADWP 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. LADWP is waiting for a permit to build on land owned by DWR. LADWP plans to begin construction in 2008.

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

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.

■ 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 Urban Water Management Planning Act (California Water Code Division 6, Part 2.6 Sections 10610-10656) was developed due to concerns over potential water supply shortages throughout California. It requires information on water supply reliability and water use efficiency measures. Urban water suppliers are required, as part of the Act, to develop and implement UWMPs to describe water supply, service area demand, population trends and efforts to promote efficient use and management of water resources. An UWMP is intended to serve as a water supply and demand planning document that is updated to reflect changes in the water supplier's service area including water supply trends, and conservation and water use efficiency policies.

The City's 2010 UWMP was adopted on April 2011 and presents the City's current supply and demand situation along with an updated presentation of future supplies, demand forecasts and measures to monitor and control future demand. The 2010 UWMP, along with other water resource planning reports is used by City staff to guide the City's water use and management efforts through the years 2015 and 2020.

Water Supply Assessments

In 2001, the California State Legislature approved Senate Bill (SB) 610, which amended Public Resources Code Section 21151.9 and Water Code Sections 10910 et seq. 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.¹ 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.¹ 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.¹

■ Regional

Metropolitan Water District Integrated Water Resources Plan (1996–2010)

Metropolitan, its member agencies, sub-agencies, and groundwater basin managers developed an Integrated Water Resources Plan (IRP) that was originally adopted by the Board in January 1996 as a long-term planning guideline for resources and capital investments. The purpose of the IRP was the development of a preferred resource mix to meet the water supply reliability and water quality needs for the region in a cost-effective and environmentally sound manner.

In 2010, the Metropolitan Board of Directors adopted an updated IRP that reviewed the goals and achievements of the original IRP, identified changed conditions for water resource development, and updated the resource targets through 2025. A key component of the updated plan was the addition of a planning buffer. The planning buffer provided for the identification of additional supplies, both imported and locally developed, to address uncertainty in future supplies and demands from factors such as the level of population and economic growth which directly drive water demands, water quality regulations, new chemicals found to be unhealthful, endangered species affecting sources of supplies, and periodic and new changes in climate and hydrology. Metropolitan's principal sources of water are the SWP and the Colorado River. The IRP's Preferred Resource Mix identifies a balance of local and imported water resources within Metropolitan's service area. Metropolitan expects that the resource targets and capital expenditure strategies for the Preferred Resource Mix will be continually reviewed and updated at least every 5 years to reflect changing demand and supply conditions. The following paragraphs describe the elements of the 2004 Preferred Resource Mix.

- **State Water Project.** SWP supplies (discussed in more detail below) are important for maximizing local groundwater potential and the use of recycled water since SWP water has lower salinity content than Colorado River Aqueduct water and can be used to increase groundwater conjunctive use applications.
- **Colorado River Aqueduct.** The Colorado River Aqueduct delivers water from the Colorado River, Metropolitan's original source of supply. Metropolitan has helped to fund and implement farm and irrigation district conservation programs, improvements to river operation facilities, land management programs and water transfers and exchanges through arrangements with agricultural water districts in Southern California and entities in Arizona and Nevada that use Colorado River water.
- **Water Conservation.** Conservation and water use efficiency are the foundation of the IRP. Metropolitan has invested in conservation programs since the 1980s. Historically, most of the investments have been in water efficient fixtures in the residential sector. Future efforts will focus on outdoor water use, including landscaping and commercial/industrial uses.
- **Recycled Water.** Reclaimed or recycled municipal and industrial water is not potable, but can be used for maintaining lawns, protecting groundwater basins from saltwater intrusion, industrial processes, and recharging local aquifers. Metropolitan offers financial incentives to member agencies for developing economically viable reclamation projects.
- **Conjunctive Use.** Conjunctive use is the coordinated use of surface water supplies and groundwater storage. It entails storing surplus imported water during the winter months or wet years in local surface reservoirs and recharging local groundwater basins, then using the stored supplies during dry months and droughts, thus increasing the supply reliability of the region.
- **Water Transfers.** Under voluntary water transfer agreements, agricultural communities using irrigation water may periodically sell some of their water allotments to urban areas. The water is delivered through existing SWP or Colorado River Aqueduct facilities. Metropolitan's policy toward potential transfers states that the transfers must not harm the environment or contribute to the mining of local groundwater supplies.
- **Groundwater Recovery.** Natural groundwater reservoirs serve an important function as storage facilities for local and imported water. When groundwater storage becomes contaminated, water agencies have to rely more heavily on imported surface water supplies. Treatment for polluted

groundwater is quite costly and poses environmental challenges. Metropolitan offers financial incentives to help fund member agency groundwater recovery projects.

- **Desalination.** Desalination may eventually become an important component in the Preferred Resource Mix. Metropolitan has signed agreements with three of its member agencies to provide incentives for pilot desalination projects anticipated to produce up to 60,000 acre-feet of desalted seawater annually. (An acre-foot is the amount of water that will cover 1 acre to a depth of one foot and equals approximately 326,000 gallons, which represents the needs of two average families in and around the home for 1 year.) Metropolitan is negotiating a similar agreement with the San Diego County Water Authority (SDCWA) for its desalination project in Carlsbad, anticipated to produce 56,000 afy. The Carlsbad project has obtained permits from the California Coastal Commission, State Lands Commission, and San Diego RWQCB. However, litigation has been filed challenging these approvals.

In late 2010, the Metropolitan Board of Directors adopted an update to its 2004 IRP. Metropolitan's 2010 IRP update builds upon the previous versions of the IRPs. The foundation of Metropolitan's resource strategy for achieving regional water supply reliability has been to develop and implement water resources programs and activities through its IRP preferred resource mix. Metropolitan's current preferred resource mix includes conservation, local resources such as water recycling and groundwater recovery, Colorado River supplies and transfers, SWP supplies and transfers, in-region surface reservoir storage, in-region groundwater storage, out-of-region banking, treatment, conveyance and infrastructure improvements.

The 2010 IRP also presents Metropolitan's core water resource strategies that will be used to meet full-service demands at the retail level under all foreseeable hydrologic conditions from 2015 through 2035. The high number of variables inherent in this type of analysis makes this a complex undertaking. In an effort to ensure future water supply reliability for Southern California, Metropolitan has adopted the following adaptive goals:¹⁹¹

- Core Resources Strategy: Develop programs within the four core resources (SWP, CRA, local resources, and conservation) to meet projected demands under observed conditions
- Uncertainty Buffer: Regionally collaborate to hedge against uncertainty in projected conditions, through regional consistency with 20x2020 legislation and identification of local projects to be developed if necessary
- Foundational Actions: Guard against unknown risks to the Core Resources and Uncertainty Buffer, by pursuing low-risk, low-cost actions to shorten implementation time for further resources (recycled water, seawater desalination, stormwater, and graywater), if needed.¹⁹²State Water Project

One of Metropolitan's two major sources of water is the SWP, which is owned by the State of California (State) and operated by the DWR. This project transports Feather River water stored in and released from Oroville Dam and unregulated flows diverted directly from the San Francisco Bay/Sacramento-San Joaquin River Delta (Bay-Delta) south via the California Aqueduct to four delivery points near the northern and eastern boundaries of Metropolitan's service area. The total length of the California Aqueduct is approximately 444 miles.

¹⁹¹ Metropolitan Water District of Southern California, *2010 Integrated Resources Plan* (October 2010), p. 4-6.

¹⁹² Metropolitan Water District of Southern California, *2010 Integrated Resources Plan* (October 2010), p. 4-6.

In 1960, Metropolitan signed a contract with DWR. Metropolitan is one of 29 agencies that have long-term contracts for water service from DWR, and is the largest agency in terms of the number of people it serves (almost 19 million), the share of SWP water that it has contracted to receive (approximately 46 percent), and the percentage of total annual payments made to DWR by agencies with State water contracts (approximately 60 percent in 2008). Upon expiration of the State Water Contract term (currently in 2035), Metropolitan has the option to continue service under substantially the same terms and conditions. Metropolitan presently intends to exercise this option to continue service to at least 2052.

Water received from the SWP by Metropolitan from 2002 through 2008, including water from water transfer, groundwater banking and exchange programs, varied from a low of 1,040,000 acre-feet in calendar year 2008 to a high of 1,794,000 acre-feet in 2004. Below-normal precipitation in the northern Sierra Mountains in the winter of 2007 and spring of 2008, the season when most of the annual precipitation occurs, ended with record dry conditions during March and April of 2008. Metropolitan's allocation from the SWP for calendar year 2008 was 35 percent of its contracted amount, or 669,000 acre-feet. Metropolitan received approximately 1,040,000 acre-feet of water using the SWP's California Aqueduct in 2008, including the allocation from the SWP and deliveries from water transfers, groundwater banking, and exchange programs. Management of the availability of SWP supplies through water marketing and groundwater banking plays an important role in meeting California water needs.

■ Local

LADWP

The LADWP's Urban Water Management Plan (UWMP) is designed to meet the current requirements of the California Urban Water Management Planning Act, and it also serves as the City's master plan for water supply and resources management. The UWMP 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, the UWMP provides the basic policy principles that will guide LADWP's decision-making process to secure a sustainable water supply for the City of Los Angeles.

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.

Urban Water Management Plan (UWMP)

The LADWP's UWMP was last updated in early 2011. The UWMP is designed to meet the current requirements of the California Urban Water Management Planning Act, but also serves as the City's master plan for water supply and resources management. This plan is intended to help 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 UWMP 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 April 2011 and was submitted to the DWR prior to July 30, 2011.

LADWP projects water demands based on historical trends in billing data, projections of water conservation, and projections of demographics provided by the Southern California Association of Governments (SCAG). While population is a primary driver of how much water is used, trends in development within an area also impacts water demand. 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.

LADWP’s Securing L.A.’s Water Supply

In May 2008, the City of LADWP published a Water Supply Action Plan, “Securing L.A.’s Water Supply,” which provides a blueprint for creating sustainable sources of water for the future of Los Angeles through the year 2030. It relies on a set of both short-term and long-term strategies to secure the City’s water future. The Plan includes: investments in state-of-the-art technology; a combination of rebates and incentives; the installation of smart sprinklers, efficient washers and urinals; and long-term measures such as expansion of water recycling and investment in cleaning up the local groundwater supply. The premise of the Water Supply Action Plan is that the City will meet all new demand for water (about 100,000 acre-feet per year) through a combination of water conservation and water recycling. Specifically, 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 increased conservation efforts. In total, the City anticipates that the plan will conserve or recycle 32.6 billion gallons of water a year.

The plan also addresses current and future SWP supply shortages. However, the Action Plan concludes that MWD’s actions in response to this threat will ensure continued reliability of its water deliveries.

City of Los Angeles General Plan Framework

The City of Los Angeles General Plan Framework (Framework), adopted December 1996 and amended most recently in August 2001, is a long range, citywide, comprehensive growth strategy. The Framework includes policies related 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 Framework includes policies that address deficiencies, including the expansion of public services and infrastructure commensurate with levels of demand.

Policies from the Framework related to water supply are listed in Table 4.14-2 (General Plan Policies Relevant to Water Supply, Storage, and Distribution).¹⁹³

Table 4.14-2 General Plan Policies Relevant to Water Supply, Storage, and Distribution	
<i>No.</i>	<i>Policy</i>
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.

¹⁹³ Los Angeles Department of City Planning, *The Citywide General Plan Framework: An Element of the City of Los Angeles General Plan* (adopted August 8, 2001), Chapter 9 (Infrastructure and Public Services), CPC 94-0354 GPF CF 95-2259 CF 01-1162, <http://cityplanning.lacity.org/cwd/framwk/chapters/09/09.htm> (accessed February 2, 2011).

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

No.	Policy
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* (adopted August 8, 2001), Chapter 9 (Infrastructure and Public Services), CPC 94-0354 GPF CF 95-2259 CF 01-1162, <http://cityplanning.lacity.org/cwd/framwk/chapters/09/09.htm> (accessed February 2, 2011).

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 EIR.

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.¹⁹⁴ These requirements are described under Municipal Water Conservation, in this section of the EIR above.

“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.¹⁹⁵ 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

¹⁹⁴ City of Los Angeles, *Los Angeles Municipal Code*, http://www.amlegal.com/los_angeles_ca/ (accessed August 14, 2009).

¹⁹⁵ City of Los Angeles, Emergency Water Conservation Ordinance No. 166,080 (effective July 25, 1990).

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 Granada Hills–Knollwood Community Plan Policies) and Table 4.14-4 (Proposed Sylmar Community Plan Policies) list proposed policies that are applicable to issues of Water Supply.

Table 4.14-3 Proposed Granada Hills–Knollwood Community Plan Policies	
<i>Policy No.</i>	<i>Policy</i>
CF9.1	Local Water Resources Optimization. Meet increases in the demand for water through conservation, the use of recycled water for irrigation, nonpotable, and nonresidential uses, and by recharging the local groundwater aquifers where permitted, to reduce dependence on imported water.
CF9.2	Local Distribution System. Support the appropriate expansion, upgrade and/or improvement of the local water distribution system. Protect existing water supplies from contamination, and clean up groundwater supplies so those resources can be more fully utilized.
CF9.3	Water Conservation. Continue to require the installation of water conservation measures/devices that limit water usage for all new municipal and private projects, and major alterations to existing municipal and private facilities, as recommended by LADWP.
CF9.4	Alternative Sources. Support the development of reliable and cost-effective sources or alternative water supplies, including opportunities for groundwater recharge, water reclamation and exchanges and transfers.
CF9.5	Interdepartmental Coordination. Coordinate with LADWP to expand, upgrade, or improve the local water distribution system within Granada Hills–Knollwood when needed to accommodate increased demand for water.
CF9.6	Surplus Properties. Prior to the disposition or sale of any City-owned property located within the watershed, the department with jurisdiction over said property should consider transferring jurisdiction and control to another City agency, such as Department of Recreation and Parks, that would prioritize the land for multi-benefit projects to include best management practices for the capture and infiltration of stormwater that will aide in recharging the underground water basin, thereby retaining the land for public use and enjoyment.

Table 4.14-4 Proposed Sylmar Community Plan Policies	
<i>Policy No.</i>	<i>Policy</i>
CF9.1	Local Water Resources Optimization. Meet increases in the demand for water through conservation, the use of recycled water for irrigation, nonpotable, and nonresidential uses, and by recharging the local groundwater aquifers where permitted, to reduce dependence on imported water.
CF9.2	Local Distribution System. Support the appropriate expansion, upgrade and/or improvement of the local water distribution system. Protect existing water supplies from contamination, and clean up groundwater supplies so those resources can be more fully utilized.
CF9.3	Water Conservation. 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.

Table 4.14-4 Proposed Sylmar Community Plan Policies

<i>Policy No.</i>	<i>Policy</i>
CF9.4	Alternative Sources. Support the development of reliable and cost-effective sources or alternative water supplies, including opportunities for groundwater recharge, water reclamation and exchanges and transfers.
CF9.5	Interdepartmental Coordination. Coordinate with LADWP to expand, upgrade, or improve the local water distribution system within Sylmar when needed to accommodate increased demand for water.
CF9.6	Surplus Properties. Prior to the disposition or sale of any property located within the watershed, the department with jurisdiction over said property should consider transfer jurisdiction and control to another City agency, such as Los Angeles Recreation and Parks, that would prioritize the land for multi-benefit projects to include best management practices for the capture and infiltration of stormwater that will aide in recharging the underground water basin, thereby retaining the land for public use and enjoyment.

Consistency Analysis

The proposed plans will update and replace the existing Community Plans in Granada Hills–Knollwood and Sylmar. The policies contained in the proposed plans 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 plans would allow growth, all new development under the proposed plans would be required to comply with these policies and implement the standard mitigation described. Therefore, the proposed plans would be consistent with policies in the General Plan.

4.14.3 Project Impacts and Mitigation

■ Analytic Method

The analysis in this section focuses on the nature and magnitude of the change in levels of water use as a result of implementation of the proposed plans. The primary resources used for this analysis include the following technical documents: LADWP’s 2010 UWMP and the 2008 WSAP entitled “Securing L.A.’s Water Supply,” MWD Integrated Water Resource Management Plan and 2010 Regional UWMP, supporting documents, and information from City staff. According to correspondence with LADWP staff to determine the water demand of the various land uses and proposed land use changes, water use demand factors were formulated based on population and employment growth projections. Current and future consumption rates were calculated on a per capita basis as required by the Water Conservation Act of 2009. This is a departure from water demand projections based on solely on type of land use. The demand generated by the Proposed Plans is compared to City supplies to assess the impact of the proposed plans on the water supply.¹⁹⁶

To determine impacts on water supply resulting from implementation of the proposed plans, this section includes a comparison of the projected increase in water demand over the 20-year horizon of the proposed plans to future available supplies. It also includes an analysis of whether any infrastructure improvements would be necessary to provide water service to the project area over the life of the

¹⁹⁶ Charles C. Holloway, written correspondence with Manager of Environmental Assessment and Planning, Los Angeles Department of Water and Power (June 23, 2009).

proposed plans. While the proposed plans have capacities for population, housing, and employment slightly larger than the adjusted SCAG 2030 projections, for purposes of this analysis, the proposed plan's impacts on water supply are based on the adjusted projections

The Los Angeles CEQA Thresholds Guide (2006) sets forth guidance for the determination of significance of aesthetic impacts. This guidance is based on Appendix G of the CEQA Guidelines 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 plans 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
- 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 were no effects identified that would not have any impact with respect to water treatment or supply.

■ Less-Than-Significant Impacts

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

Granada Hills–Knollwood

According to the LADWP 2010 UWMP Citywide water demand (based on normal weather conditions) for 2010 was 634,209 af. LADWP projects that Citywide water demand (again, based on normal weather conditions) would be 710,760 af by 2035 with passive conservation measures. LADWP further projects water demand in 2035 with aggressive and passive conservation measures combined would be 641,622 af.¹⁹⁷ This is a savings of almost 70,000 afy.

The Granada Hills–Knollwood CPA is located in a suburban area of the City that is predominantly developed with residential uses. The proposed plan could result in the redevelopment of existing land uses or the development of undeveloped/vacant land within the CPA. However, the proposed plan would accommodate a relatively small increase in population in the CPA through 2030. This additional development would slightly 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.

¹⁹⁷ Los Angeles Department of Water and Power, *2010 Urban Water Management Plan* (June 2011), p. ES-10.

Table 4.14-5 (Water Demand for Existing Granada Hills–Knollwood Community Plan) shows the water demand that would result from reasonably expected capacity of the proposed plan without conservation measures in accordance with the Water Conservation Act of 2009. Table 4.14-6 (Water Demand for proposed Granada Hills–Knollwood Community Plan) shows the water demand at build-out of the proposed plan.

Table 4.14-5 Existing Granada Hills–Knollwood Water Demand				
	<i>Existing Population and Employee Conditions^a</i>	<i>Water Use Generation Rates^b</i>	<i>MGD</i>	<i>afy</i>
Population	58,696	152 gpcd	8.92	9,994
Employment	14,957	84 GED	1.26	1,407
Total			10.18	11,401

SOURCES:

- a. City of Los Angeles (2011); Southern California Association of Governments, *2004 Regional Transportation Plan* (adopted April 2004), socioeconomic data.
 - b. Los Angeles Department of Water and Power, *2010 Urban Water Management Plan* (June 2011).
- gpcd = gallons per capita per day; GED = gallons per employee per day

Table 4.14-6 2030 Water Demand for Proposed Granada Hills–Knollwood Community Plan					
	<i>Proposed Plan Capacity</i>	<i>Adjusted SCAG 2030 Projections^a</i>	<i>Water Use Generation Rates (2020 Target)^b</i>	<i>MGD</i>	<i>afy</i>
Population	66,168	65,293	138 gpcd	9.01	10,093
Employment	20,194	19,976	61 GED	1.21	1,360
Total				10.22	11,453

SOURCE: City of Los Angeles (2011); Southern California Association of Governments, *2004 Regional Transportation Plan* (adopted April 2004), socioeconomic data.

gpcd = gallons per capita per day; GED = gallons per employee per day

- a. City of Los Angeles Department of City Planning, adjusted SCAG projection applies to population and housing units only; employment was not adjusted.
- b. Per 2010 UWMP, LADWP not calculate a daily water demand per employee (it was an aggregated projection for the water use sector), water demand factor is 20 percent less than baseline projected factor of 76 gpd per employee. This appears to be reasonable as SFPUC uses as low as 18 gallons per day per employee (GED) and as much as 96 GED.

Baseline water demand is calculated to be 10.18 mgd (11,401 afy) under the 2005 population and employment levels, and is projected to increase by 0.06 mgd with the 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 calculated to be 10.18 mgd. As shown in Table 4.14-6, projected water demand for the CPA in 2030 with implementation

of the proposed plan would be 10.22 mgd (11,453 afy).¹⁹⁸ Table 4.14-7 (Water Demand Comparison in Granada Hills–Knollwood Community Plan [Existing Conditions (2005) and 2030 Projections]) shows the existing demand based on 2005 conditions, the projected population and employment in 2030 and the resulting water demand in 2030. 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 0.06 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.

Table 4.14-7 Water Demand Comparison in Granada Hills–Knollwood Community Plan (Existing Conditions (2005) and 2030 Projections)

<i>Water Demand for Existing Community Plan Capacity</i>				<i>Proposed Plan Reasonably Expected Capacity</i>			<i>Net Changes</i>		
	<i>Population and Employment (2005)</i>	<i>MGD</i>	<i>afy</i>	<i>Population and Employment (2030)</i>	<i>MGD</i>	<i>afy</i>	<i>Population and Employment</i>	<i>Water Use</i>	
								<i>MGD</i>	<i>afy</i>
Population	58,696	8.92	9,994	65,293	9.01	10,093	6,597	0.09	99
Employment	14,957	1.26	1,407	19,976	1.21	1,360	5,019	-0.03	-32
Total		10.18	11,401		10.22	11,453		0.06	67

SOURCES: Table 4.14-5 and Table 4.14-6

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 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 Framework 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 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 CPA. Further, Policies CF9.1, CF9.3, and CF9.4 of the proposed plan, included in Table 4.14-3, are intended to implement water conservation

¹⁹⁸ These water consumption estimates are based on historic water use rates that are anticipated to reduce with increased water conservation as well as recycling.

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 water needs and included policies, implementation of the proposed Granada Hills–Knollwood Community Plan would have a *less-than-significant* impact on water treatment facilities, and no mitigation is required.

Sylmar

According to the LADWP 2010 UWMP Citywide water demand (based on normal weather conditions) for 2010 was 634,209 af. LADWP projects that Citywide water demand (again, based on normal weather conditions) would be 710,760 af by 2035 with passive conservation measures. LADWP further projects water demand in 2035 with aggressive and passive conservation measures combined would be 641,622 af.¹⁹⁹ This is a savings of almost 70,000 afy.

The Sylmar CPA is located in a suburban area of the City that is predominantly developed with residential uses. The proposed plan could result in the redevelopment of existing land uses or the development of undeveloped/vacant land within the CPA. However, the proposed plan would result in a relatively small growth in the CPA through 2030. This additional development would increase the demand for water in the CPA. Table 4.14-8 (Proposed Plan Water Demand) shows the water demand that would result from reasonably expected capacity of the proposed plan.

Table 4.14-8 (Water Demand for Existing Sylmar Community Plan) shows the water demand that would result from reasonably expected capacity of the proposed plan without conservation measures in accordance with the Water Conservation Act of 2009. Table 4.14-9 (Water Demand for Proposed Sylmar Community Plan) shows the water demand at build-out of the proposed plan.

Table 4.14-8 Existing Sylmar Water Demand				
	<i>Existing Population and Employee Conditions^a</i>	<i>Water Use Generation Rates^b</i>	<i>MGD</i>	<i>afy</i>
Population	71,794	152 gpcd	10.91	12,224
Employment	19,619	84 GED	1.65	1,846
Total			12.56	14,070

SOURCES:

- a. City of Los Angeles (2011); Southern California Association of Governments, *2004 Regional Transportation Plan* (adopted April 2004), socioeconomic data.
 - b. Los Angeles Department of Water and Power, *2010 Urban Water Management Plan* (June 2011).
- gpcd = gallons per capita per day; GED = gallons per employee per day

¹⁹⁹ Los Angeles Department of Water and Power, *2010 Urban Water Management Plan* (June 2011), p. ES-10.

	<i>Proposed Plan Capacity</i>	<i>Adjusted SCAG 2030 Projections^{a,b}</i>	<i>Water Demand Factor (2020 Target)</i>	<i>MGD</i>	<i>afy</i>
Population	89,378	85,993	138 gpcd	11.87	13,293
Employment	26,389	25,660	61 GED	1.56	1,748
Total				13.43	15,040

SOURCES: City of Los Angeles (2011); Southern California Association of Governments, 2004 *Regional Transportation Plan* (adopted April 2004), socioeconomic data.

- a. City of Los Angeles Department of City Planning, adjusted SCAG projection applies to population and housing units only; employment was not adjusted.
- b. Per 2010 UWMP, LADWP not calculate a daily water demand per employee (it was an aggregated projection for the water use sector), water demand factor is 20 percent less than baseline projected factor of 76 gpd per employee. This appears to be reasonable as SFPUC uses as low as 18 gallons per day per employee (GED) and as much as 96 GED.

Baseline water demand is calculated to be 12.56 mgd (14,070 afy) under the 2005 population and employment levels, and is projected to increase by 0.87 mgd with the 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 12.56 mgd. As shown in Table 4.14-6, projected water demand for the CPA in 2030 with implementation of the proposed plan would be 13.43 mgd.²⁰⁰ Table 4.14-10 shows the existing demand based on 2005 conditions, the projected population and employment in 2030 and the resulting water demand in 2030. 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 0.87 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.

	<i>Water Demand for Existing Community Plan Capacity</i>			<i>Proposed Plan Reasonably Expected Capacity</i>			<i>Net Changes</i>		
	<i>Population and Employment (2005)</i>	<i>MGD</i>	<i>afy</i>	<i>Population and Employment (2030)</i>	<i>MGD</i>	<i>afy</i>	<i>Population and Employment</i>	<i>Water Use</i>	
								<i>MGD</i>	<i>afy</i>
Population	71,794	10.91	12,224	85,993	11.87	13,293	14,199	0.95	1,069
Employment	19,619	1.65	1,846	25,660	1.56	1,748	6,041	-0.09	-98
Total		12.56	14,070		13.43	15,040		0.87	971

SOURCE: Table 4.14-5 and Table 4.14-6.

²⁰⁰ These water consumption estimates are based on historic water use rates that are anticipated to reduce with increased water conservation as well as recycling.

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 Plans 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 Framework 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 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 CPA. Further, Policies CF9.1, CF9.3, CF9.4, and CF9.5 of the proposed plan, included in Table 4.14-4, are intended to implement water conservation measures to meet and accommodate increased water demand created by new development permitted under the Proposed Plans. Based on the availability of sufficient capacity at LAAFP to handle the projected water needs and included policies, implementation of the Sylmar Community Plan would have a *less-than-significant* impact on water treatment facilities, and no 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*.**

Granada Hills–Knollwood

The proposed plan could result in the redevelopment of existing land uses or the development of undeveloped/vacant land within the CPA. Additionally, reasonably anticipated development would result, as shown in Table 3-4, in an increase of residents in the CPA, and some low- and medium-density

residential uses and nonresidential (employment) uses through 2030. As shown in Table 4.14-5, under 2005 population and employment conditions water demand is calculated to be 10.18 mgd.

As shown in Table 4.14-6, projected water demand for the CPA in 2030 under reasonably expected development levels would be approximately 10.22 mgd.²⁰¹ The forecast 2030 water demand with implementation of the proposed plan would slightly increase by 0.06 mgd. The forecast water demand represents a less than 1 percent increase compared to the calculated water demand in the CPA. Citywide demand in 2005 was 590 mgd, and is anticipated to increase to 692 mgd by 2030.²⁰² Upon implementation of the proposed plan, water demand by 2030 would represent less than 2 percent of the total demand in the LADWP service area in 2030.

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 Framework 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 CF9.1, CF9.3, and CF9.4 of the proposed plan require 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 Framework and proposed plan policies designed to reduce water usage would help reduce potential impacts to water supplies. While the slight increased demand for water as a result of implementation of the proposed Granada Hills–Knollwood Community Plan is negligible compared to citywide water demand, the proposed plan and implementing 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*.

Sylmar

The proposed plan could result in the redevelopment of existing land uses or the development of undeveloped/vacant land within the CPA. Additionally, reasonably anticipated development under the proposed plan would result, as shown in Table 3-4, in an increase of residents in the CPA. As shown in Table 4.14-5, under 2005 population and employment conditions water demand is calculated to be 12.56 mgd. As shown in Table 4.14-9, projected water demand for the Sylmar CPA in 2030 under

²⁰¹ These water consumption estimates are based on historic water use rates that are anticipated to reduce with increased water conservation as well as recycling.

²⁰² Los Angeles Department of Water and Power, *Securing L.A.'s Water Supply* (May 2008).

reasonably expected development levels would be 13.43 mgd (15,040 afy).²⁰³ The forecast 2030 water demand would increase by less than 1 mgd. The forecast water demand represents a 6.9 percent increase compared to existing water demand in the CPA. Citywide demand in 2005 was 590 mgd, and is anticipated to increase to 692 mgd by 2030.²⁰⁴ Upon implementation of the proposed plan, demand by 2030 would represent less than 2 percent of the total demand in the LADWP service area in 2030.

Future development occurring in the Sylmar 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 Framework 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 CF9.1, CF9.3, and CF9.4 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 Framework 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 Sylmar Community Plan is negligible compared to citywide water demand, the proposed plan and implementing 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 plans include 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 plans:

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 Sylmar 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

²⁰³ These water consumption estimates are based on historic water use rates that are anticipated to reduce with increased water conservation as well as recycling.

²⁰⁴ Los Angeles Department of Water and Power, *Securing L.A.'s Water Supply* (May 2008).

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 greater. 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 LADWP has up to 125 mgd remaining capacity at its LAAFP water treatment facility. Accordingly, the LADWP has no plans to expand its existing water treatment 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 Granada Hills–Knollwood and Sylmar CPAs. As implementation of the proposed plans would not change the overall growth projected for the City of Los Angeles, the proposed plans, 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 Ordinance²⁰⁵ 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 LADWP 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. Historical climate conditions identify short- and long-term droughts in California and throughout the southwestern United States; because of the expanded use of recycled water, extensive passive and aggressive conservation efforts implemented citywide, implementation of the proposed plans 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 plans' cumulative impact would be significant and unavoidable with regard to water resources.

²⁰⁵ City of Los Angeles, Emergency Water Conservation Ordinance No. 166,080 (effective July 25, 1990).

4.14.5 References

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- . *Securing L.A.'s Water Supply*, May 2008.
- Metropolitan Water District of Southern California. *2010 Integrated Resources Plan*, October 2010.
- . *Integrated Resources Plan (IRP) Update*, January 3, 2011.
<http://www.mwdh2o.com/mwdh2o/pages/yourwater/irp/> (accessed January 24, 2011).
- . *Integrated Water Resources Plan 2010 Update*. Report No. 1373, October 2010).
- . *Regional Urban Water Management Plan*, 2005.
- . *Regional Urban Water Management Plan*, November 2010.
- Southern California Association of Governments. *2004 Regional Transportation Plan*, adopted April 2004.

Wastewater

This section of the EIR describes wastewater demand and treatment within the Granada Hills–Knollwood and Sylmar CPAs 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 plans.

Data for this section were taken from a variety of sources, including the City of Los Angeles General Plan and the Los Angeles Department of Public Works Bureau of Sanitation (LABS). 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 CPAs. 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.²⁰⁶ The wastewater treatment system of the City is divided into two major service areas: the Hyperion Service Area (HSA) and the Terminal Island Service Area (TISA).

The CPAs are served by the TWRP, located at 6100 Woodley Avenue in Van Nuys.²⁰⁷ The TWRP serves the Western San Fernando Valley from Chatsworth to Van Nuys, which includes the Granada Hills–Knollwood and Sylmar CPA.²⁰⁸ The TWRP uses tertiary treatment, nitrification/denitrification (NdeN), disinfection, and dechlorination. The TWRP began operations in 1985 and underwent a major upgrade in 1991. Currently, the TWRP has the capacity to provide tertiary treatment for an average dry weather flow (ADWF) of 80 mgd. The projected ADWF for the TWRP sewershed is 51 mgd, which provides for a remaining capacity of 29 mgd.²⁰⁹

4.14.7 Regulatory Framework

■ Federal

National Pollution Discharge Elimination System Permits

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

²⁰⁶ 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).

²⁰⁷ Jim Feely, Personal communication with Senior Wastewater Treatment Operator, Los Angeles Department of Public Works, Bureau of Sanitation (April 26, 2011).

²⁰⁸ Los Angeles Department of Public Works, Bureau of Sanitation, LA Sewers, Donald C. Tillman Water Reclamation Plant, http://www.ci.la.ca.us/san/lasewers/treatment_plants/tillman/index.htm (accessed April 28, 2011).

²⁰⁹ 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).

■ 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 Code of Federal Regulations Part 40, Section 122.41(m), 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.²¹⁰

■ 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.

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

²¹⁰ 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).

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, 2006.²¹¹

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.²¹²

City of Los Angeles General Plan Framework

The City of Los Angeles Framework, adopted December 1996 and amended most recently in August 2001, is a long range, citywide, comprehensive growth strategy. The Framework includes policies related

²¹¹ 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).

²¹² City of Los Angeles, *Integrated Resources Plan Draft Environmental Impact Report*, SCH No. 2004071091 (December 2005), p. 1-4.

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 Framework includes policies that address deficiencies, including the expansion of public services and infrastructure commensurate with levels of demand.

Policies from the Framework related to Wastewater are listed in Table 4.14-11 (General Plan Policies Relevant to Wastewater).²¹³

Table 4.14-11 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 mitigate 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, <i>The Citywide General Plan Framework: An Element of the City of Los Angeles General Plan</i> (adopted August 8, 2001), Chapter 9 (Infrastructure and Public Services), CPC 94-0354 GPF CF 95-2259 CF 01-1162, http://cityplanning.lacity.org/cwd/framwk/chapters/09/09.htm (accessed February 2, 2011).	

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 premises as estimated by the City Engineer.” In addition, the LAMC defines permitted regulations related to industrial wastewater.²¹⁴

²¹³ Los Angeles Department of City Planning, *The Citywide General Plan Framework: An Element of the City of Los Angeles General Plan* (adopted August 8, 2001), Chapter 9 (Infrastructure and Public Services), CPC 94-0354 GPF CF 95-2259 CF 01-1162, <http://cityplanning.lacity.org/cwd/framwk/chapters/09/09.htm> (accessed February 2, 2011).

²¹⁴ City of Los Angeles, *City of Los Angeles Municipal Code*, http://www.amlegal.com/los_angeles_ca/ (accessed August 18, 2009).

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 4.14-12 (Proposed Granada Hills–Knollwood Community Plan Policies) and Table 4.14-13 (Proposed Sylmar Community Plan Policies) list proposed policies that are applicable to issues of Wastewater.

Table 4.14-12 Proposed Granada Hills–Knollwood Community Plan Policies	
<i>Policy No.</i>	<i>Policy</i>
Policy CF10.1	Wastewater Minimization. Require that wastewater flows be minimized in existing and future developments through stricter water conservation measures, recycling efforts and other features that reduce on-site wastewater output.
Policy CF10.2	Recycled Water. Promote the use of recycled water for and irrigation purposes in new industrial and commercial developments.

Table 4.14-13 Proposed Sylmar Community Plan Policies	
<i>Policy No.</i>	<i>Policy</i>
Policy CF10.1	Wastewater Minimization. Require that wastewater flows be minimized in existing and future developments through stricter water conservation measures, recycling efforts and other features that reduce on-site wastewater output.
Policy CF10.2	On-Site Wastewater Output. Promote advanced waste reduction and diversion methods for all wastewater treatment, including the establishment of methane recovery facilities and the implementation of waste-to-energy projects where characteristics meet criteria for effective energy generation.
Policy CF10.3	Recycled Water. Promote the use of recycled water for and irrigation purposes in new industrial and commercial developments.

Consistency Analysis

The proposed plans will replace the existing 1997 Granada Hills–Knollwood and 1996 Sylmar Community Plans. Wastewater generation is directly related to water usage, and water conservation results in lower generation of wastewater. The policies contained in the plans 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 plans would allow growth, all new development under the proposed plans would be required to comply with these policies and implement the standard mitigation described, which would reduce water usage and, therefore, wastewater generation. All new development would also be required to comply with NPDES requirements. Therefore, the proposed plans 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 the land use data under existing conditions and proposed plans. The wastewater generated by the proposed plans would be compared to City treatment capacity to assess the impact of the proposed plans on wastewater. While the proposed plans has capacities for population, housing, and employment slightly larger than the adjusted SCAG 2030 projections, for consistency purposes of this analysis, the proposed plans 's impacts on wastewater facilities and systems are based on the adjusted SCAG 2030 projections

The Los Angeles CEQA Thresholds Guide (2006) sets forth guidance for the determination of significance of aesthetic impacts. This guidance is based on Appendix G of the CEQA Guidelines 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 plans may have a significant adverse impact on wastewater if it would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board
- 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
- 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

There were no effects identified that would not have any impact with respect to wastewater.

■ Less-Than-Significant Impacts

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

In certain areas of the CPAs, the proposed plans would allow for changes of specific land use designations and zoning, with a potential for increases in densities of existing uses. In all cases, existing uses within the CPAs would be allowed to remain. Additional development throughout the CPAs accommodated under the proposed plans, such as infill and redevelopment, would increase wastewater treatment demand.

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

Existing Framework 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 CPAs. Further, future development under the proposed plans would be required to adhere to federal, state, regional, and local regulations, and the proposed goals and policies identified in Table 4.14-12 and Table 4.14-13 above. Implementation of the proposed plans would have a *less-than-significant* impact and no mitigation measures are required.

Impact 4.14-4 **Implementation of the proposed plans could result in an inability to accommodate the CPAs' 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*.**

Granada Hills–Knollwood

The Granada Hills–Knollwood CPA is located in a suburban area of the City that is predominantly developed with residential uses. The proposed plan could result in the redevelopment of existing land uses or the development of undeveloped/vacant land within the CPA. Additionally, the proposed plan would accommodate a forecasted increase in population in the CPA from approximately 58,696 to 65,293 and an increase in employment jobs from 14,957 to 19,976 (an increase of 5,019 jobs) by 2030. This population and employment increase would increase wastewater generation in the CPA. However, the wastewater treatment plants that serve the City of Los Angeles have been sized to accommodate growth within 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 use²¹⁵ and, as described in the project description, residential dwelling units would be constructed as infill or redevelopment without growth in population. In fact, based on the populations and employment projections developed by SCAG and adjusted by the Los Angeles Department of City Planning, population and employment are projected to decrease by 2030 as a result of implementation of the proposed plan when compared to the existing Community Plan. Nevertheless, by 2030, the proposed plan would result in increases in population within the CPA; the existing population within the CPA is 58,696 persons (2005); the proposed plan accommodates a 2030 forecast of 65,293 persons and up to 19,976 jobs along with a minor decrease in commercial and industrial square footage of 1,873,080 sf.²¹⁶

Pursuant to the Water Conservation Act of 2009, water demand per person and per employee is expected to decrease as passive and aggressive water conservation efforts and water saving efficiencies takes effect over the next 10 to 20 years. As a result per capita demand for wastewater treatment is expected to decrease accordingly. For conservative planning purposes, this analysis assumes up to 90 percent of domestic water use becomes wastewater in need of treatment. This is because in highly urbanized areas, potable water is not consumed in great quantities and the majority flows into the wastewater systems. Table 4.14-14 (Wastewater Generation for the Proposed Granada Hills–Knollwood Community Plan Build-Out) shows the wastewater generation anticipated by the reasonably expected capacity of the proposed plan in 2030.

	<i>Proposed Plan Capacity</i>	<i>Adjusted SCAG 2030 Projections^a</i>	<i>Potable Water Demand (mgd)</i>	<i>Wastewater Generation (mgd)</i>
Population	66,168	65,293	9.01	8.11
Employment	20,194	19,976	1.21	1.09
Total			10.23	9.20

SOURCE: Table 4.14-6 (Water Demand for Proposed Granada Hills–Knollwood Community Plan)

gpcd = gallons per capita per day; GED = gallons per employee per day

a. Assumes 90% of M&I potable water supply is returned as wastewater for treatment.

As shown Table 4.14-15 (Wastewater Demand Comparison in Granada Hills–Knollwood Community Plan [Existing Conditions (2005) and 2030 Projections]), wastewater generation is a function of potable water demand. As stated above, this analysis assumes 90 percent of potable water is sent into the sewer system for wastewater treatment. Over the planning horizon, even with anticipated growth in the proposed plan average annual wastewater generation is only expected to grow by 0.04 mgd in 2030. As stated above, the CPA is served by the TWRP.²¹⁷ Currently, the TWRP has the capacity to provide tertiary treatment for an average dry weather flow (ADWF) of 80 mgd. The projected ADWF for the TWRP sewershed is 51 mgd.²¹⁸ The sewershed includes the CPA; as such, the TWRP could easily

²¹⁵ City of Los Angeles, *L.A. CEQA Thresholds Guide* (2006), Exhibit M.2-12 (Sewage Generation Factors).

²¹⁶ Table 3-5 (Summary of Net Changes in Land Use for the Granada Hills–Knollwood CPA).

²¹⁷ Jim Feely, Personal communication with Senior Wastewater Treatment Operator, Los Angeles Department of Public Works, Bureau of Sanitation (April 26, 2011).

²¹⁸ 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).

accommodate the existing and projected wastewater flows from the CPA. Therefore, reasonably expected development in the Granada Hills–Knollwood Community Plan would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities and impacts would be *less than significant*, and no additional mitigation measures are required.

Table 4.14-15 Wastewater Demand Comparison in Granada Hills–Knollwood Community Plan (Existing Conditions [2005] and 2030 Projections)						
<i>Wastewater Demand for Existing Community Plan Capacity for 2030</i>			<i>Proposed Plan Reasonably Expected Capacity</i>		<i>Net Changes</i>	
	<i>Population and Employment (2005)</i>	<i>MGD^a</i>	<i>Adjusted SCAG 2030 Projections</i>	<i>MGD^a</i>	<i>Population and Employment</i>	<i>Wastewater Generation MGD</i>
Population	58,696	8.03	65,293	8.11	6,597	0.08
Employment	14,957	1.13	19,976	1.09	5,019	-0.04
Total		9.16		9.20		0.04

SOURCE: Table 4.14-6 (Water Demand for Proposed Granada Hills–Knollwood Community Plan).

a. Assumes 90% of M&I potable water supply is returned as wastewater for treatment.

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 plans in conjunction with individual project approvals. The CPA is well served by existing sewer infrastructure, and future developments resulting from the proposed plans would primarily be infill and redevelopment projects, rather than expansions into areas not already connected to the city’s sewer conveyance system.

Existing Framework 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 CF10.1 and CF10.3 of the proposed plan to 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 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 would be *less than significant*.

Sylmar

The Sylmar CPA is located in a suburban area of the City that is predominantly developed with residential uses. The proposed plan could result in the redevelopment of existing land uses or the

development of undeveloped/vacant land within the CPA. Additionally, the proposed plan would accommodate a forecasted increase in population in the CPA from approximately 71,794 to 85,993 and an increase in employment from 19,619 to 25,660 (or 6,041 jobs) by 2030. This population and employment increase would increase wastewater generation in the CPA. However, the wastewater treatment plants that serve the City of Los Angeles have been sized to accommodate growth within 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 TTTP. Treatment plants in the City of Los Angeles are subject to the state's wastewater treatment requirements. Wastewater from the CPA at the TTTP 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 use²¹⁹ and, as described in the project description, residential dwelling units would be constructed as infill or redevelopment without growth in population. In fact, based on the populations and employment projections developed by SCAG and adjusted by the Los Angeles Department of City Planning, population and employment are projected to decrease by 2030 as a result of implementation of the proposed plans compared to the existing Community Plan. However, by 2030, the proposed plan would result in increases in population within the CPA, the population within the CPA is 71,794 persons (2005); the proposed plan estimates 85,993 persons and up to 25,660 jobs along with changes in commercial and industrial of up to 3,005,640 sf.²²⁰

Pursuant to the Water Conservation Act of 2009, water demand per person and per employee is expected to decrease as passive and aggressive water conservation efforts and water saving efficiencies takes effect over the next 10 to 20 years. As a result per capita demand for wastewater treatment is expected to decrease accordingly. Table 4.14-16 (Wastewater Generation for the Proposed Sylmar Community Plan Build-Out) shows the wastewater generation anticipated by the reasonably expected capacity of the proposed plan in 2030. For conservative planning purposes, this analysis assumes up to 90 percent of domestic water use becomes wastewater in need of treatment. This is because in highly urbanized areas, potable water is not consumed in great quantities and the majority flows into the wastewater systems.

²¹⁹ City of Los Angeles, *L.A. CEQA Thresholds Guide* (2006), Exhibit M.2-12 (Sewage Generation Factors).

²²⁰ Table 3-6 (Summary of Net Changes in Land Use for the Sylmar CPA).

Table 4.14-16 2030 Wastewater Generation for the Proposed Sylmar Community Plan

	<i>Proposed Plan Capacity</i>	<i>Adjusted SCAG 2030 Projections^a</i>	<i>Potable Water Demand (mgd)</i>	<i>Wastewater Generation (mgd)</i>
Population	89,378	85,993	11.87	10.68
Employment	26,389	25,660	1.56	1.40
Total			13.43	12.08

SOURCE: Table 4.14-9 (Water Demand for Proposed Sylmar Community Plan).
 gpcd = gallons per capita per day; GED = gallons per employee per day
 a. Assumes 90% of M&I potable water supply is returned as wastewater for treatment.

As shown in Table 4.14-17 (Wastewater Demand Comparison in Sylmar Community Plan [Existing Conditions (2005) and 2030 Projections]), wastewater generation is a function of potable water demand. As stated above, this analysis assumes 90 percent of potable water is sent into the sewer system for wastewater treatment. Over the planning horizon, even with anticipated growth in the proposed plan average annual wastewater generation is only expected to grow by 0.78 mgd in 2030. As stated above, the CPA is served by the TWRP.²²¹ Currently, the TWRP has the capacity to provide tertiary treatment for an average dry weather flow (ADWF) of 80 mgd. The projected ADWF for the TWRP sewershed is 51 mgd.²²² The sewershed includes the CPA; as such, the TWRP could easily accommodate the existing and projected wastewater flows from the CPA. Therefore, implementation of the Sylmar Community Plan and implementing ordinances would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities and impacts would be *less than significant*.

Table 4.14-17 Wastewater Demand Comparison in Sylmar Community Plan (Existing Conditions (2005) and 2030 Projections)

<i>Wastewater Demand for Existing Community Plan Capacity for 2030</i>			<i>Proposed Plan Reasonably Expected Capacity</i>		<i>Net Changes</i>	
	<i>Population and Employee Conditions (2005)</i>	<i>MGD</i>	<i>Adjusted SCAG 2030 Projections</i>	<i>MGD</i>	<i>Population and Employment</i>	<i>Wastewater Generation MGD</i>
Population	71,794	9.82	85,993	10.68	14,199	0.86
Employment	19,619	1.48	25,660	1.40	6,041	-0.08
Total		11.30		12.08		0.78

SOURCE: Table 4.14-16 (Wastewater Demand for Proposed Sylmar Community Plan).
 Assumes 90% of M&I potable water supply is returned as wastewater for treatment.

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 in conjunction with individual project approvals. The CPA is well served by existing sewer infrastructure, and future developments resulting from the proposed plan would primarily be infill

²²¹ Jim Feely, Personal communication with Senior Wastewater Treatment Operator, Los Angeles Department of Public Works, Bureau of Sanitation (April 26, 2011).

²²² 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).

and redevelopment projects, rather than expansions into areas not already connected to the city's sewer conveyance system.

Existing Framework 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 CF10.1 through CF10.3 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 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 would be *less than significant*.

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

Any development resulting from the proposed plans and implementing ordinances would be required to provide LABS-required upgrades to the wastewater distribution systems serving the CPAs. As with the code requirements, these upgrades would be addressed for new development proposed under the CPAs and implementing ordinances in conjunction with individual project approvals. The CPAs are well served by existing sewer infrastructure and any developments resulting from the CPAs 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.

Policies contained in the proposed plans facilitate reduction of wastewater generation, which would serve to reduce the need for wastewater treatment. 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 proposed development in the CPAs. In addition, all applicable standard mitigation measures would apply to new development projects within the CPAs as a result of the proposed plans.

As stated above, the CPAs are served by the TWRP.²²³ Currently, the TWRP has the capacity to provide tertiary treatment for an average dry weather flow (ADWF) of 80 mgd. The projected ADWF for the

²²³ Jim Feely, Personal communication with Senior Wastewater Treatment Operator, Los Angeles Department of Public Works, Bureau of Sanitation (April 26, 2011).

TWRP sewershed is 51 mgd.²²⁴ The sewershed includes the projected wastewater flows from the CPAs; as such, the TWRP could easily accommodate the existing and projected wastewater flows from the CPAs. Therefore, implementation of the proposed plans would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities and impacts would be *less than significant*.

■ Mitigation Measures

The proposed plans contain programs and policies to reduce water demand, which, in turn, reduces wastewater generation. Development under the proposed plans 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 plans.

- 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

Cumulative impacts are only analyzed for those plan impacts that achieve a significance level of less-than-significant or greater. 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 TWRP. Past development in the CPAs have not exceeded wastewater treatment requirements of the RWQCB, as all development in the City is required to comply with these RWQCB regulations. Future development, including development under the proposed plans, 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 plans would not result in an exceedance of wastewater treatment requirements. Therefore the proposed plans' cumulative impact is *less than significant*.

Past development in the City could have also 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

²²⁴ 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).

effects have not led to cumulatively considerable environmental effects. The City of Los Angeles has planned treatment plant capacity based on its General Plan build-out, which includes present and future development occurring in the thirty-five Community Plan areas in the City, including the Granada Hills–Knollwood and Sylmar CPAs. The City has determined that future cumulative development citywide as allowed under its General Plan would not result in the need for expansion of or construction of wastewater treatment plants. As implementation of the proposed plans and implementing ordinances would not change the overall growth projected for the City of Los Angeles, the proposed plans, in combination with future development, the proposed plan’s cumulative impact is *less than significant*.

4.14.10 References

- Feely, Jim. Personal communication with Senior Wastewater Treatment Operator, Los Angeles Department of Public Works, Bureau of Sanitation, April 26, 2011.
- Los Angeles, City of. *Integrated Resources Plan Draft Environmental Impact Report*. SCH No. 2004071091, December 2005.
- 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, 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, LA Sewers. Donald C. Tillman Water Reclamation Plant. http://www.ci.la.ca.us/san/lasewers/treatment_plants/tillman/index.htm (accessed April 28, 2011).
- 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 of the EIR describes solid waste generation and disposal within the Granada Hills–Knollwood and Sylmar CPAs (CPAs) 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 Granada Hills–Knollwood Community Plan and implementing ordinances and the proposed Sylmar Community Plan and implementing ordinances (proposed plans). 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, including the City of Los Angeles General Plan, Los Angeles Bureau of Sanitation, Los Angeles County Department of Public Works, and the Department of Resources Recycling and Recovery (CalRecycle). 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 watershed 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 4.14-18 (Landfill Capacity and Intake).

<i>Landfill Facility</i>	<i>Estimated Closure Date</i>	<i>Permitted Daily Intake (tons/day)</i>	<i>Average Daily Intake (tons/day)</i>	<i>Remaining Permitted Daily Intake (tons/day)</i>
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 Sunshine Canyon Landfill, located in Castaic, California, can accept waste generated by residential and nonresidential activities in the CPA. The joint operation has a permitted capacity of 12,100 tons per day, with an average intake of 6,448 tons per day, which leaves approximately 5,652 tons per day of permitted daily intake capacity.

Chiquita Canyon

In addition to the Sunshine Canyon Landfill, the Chiquita Canyon Landfill accepts waste generated by activities in the CPAs. The Chiquita Canyon Landfill, located in Castaic, California, can accept waste generated by residential and nonresidential 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.

Bradley

The Bradley Landfill is currently used only as a transfer station. The Bradley Landfill's operational permit expired in 2007.²²⁵ The City is exploring plans to expand the Bradley Landfill in a two-phase process. The first phase is a transitional 43-foot vertical landfill expansion that will provide additional short-term disposal capacity within the boundaries of the existing landfill. The second phase would construct a 6,000-tons-per-day transfer station and a 1,000-tons-per-day Material Recovery Facility adjacent to the existing landfill which began operation in 2007, after the landfill's permit expired. Therefore, the only activity at Bradley Landfill is limited volume transfer operation. Since the permit for the Bradley Landfill expired in 2007 and it is not known whether or not the City's proposed plans for expansion will be accepted, for purposes of this analysis it is assumed that Bradley Landfill would not accept any solid waste and would not serve the proposed project. According to the California Integrated Waste Management Board Facility/Site Listing, Bradley Landfill's operational status for solid waste disposal is listed as closed while its operational status as a transfer facility is active.²²⁶

■ 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).²²⁷ 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

²²⁵ Los Angeles County Department of Public Works, Environmental Programs Division, *Los Angeles County Integrated Waste Management Plan, 2003 Annual Report* (February 2005).

²²⁶ California Integrated Waste Management Board, CIWMB Website, <http://www.ciwmb.ca.gov/SWIS/Search.asp> (April 17, 2008).

²²⁷ 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.

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).²²⁸

■ 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.²²⁹

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.²³⁰

■ 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 2020.²³¹ In 2006, the City of Los Angeles is estimated to have achieved an actual diversion rate of 59 percent.²³²

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

²²⁸ 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).

²²⁹ 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).

²³⁰ 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).

²³¹ 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.

²³² 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>.

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

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.²³³

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

²³³ The Southern California Conversion Technology Demonstration Project, Vision, <http://www.socalconversion.org/vision.html> (accessed 2009).

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 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 of 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 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.

City of Los Angeles General Plan Framework

The City of Los Angeles Framework, adopted December 1996 and amended most recently in August 2001, is a long range, citywide, comprehensive growth strategy. The Framework includes policies related 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 Framework includes policies that address deficiencies, including the expansion of public services and infrastructure commensurate with levels of demand.

Policies from the Framework related to solid waste generation are listed in Table 4.14-19 (General Plan Policies Relevant to Solid Waste).²³⁴

²³⁴ Los Angeles Department of City Planning, *The Citywide General Plan Framework: An Element of the City of Los Angeles General Plan* (adopted August 8, 2001), Chapter 9 (Infrastructure and Public Services), CPC 94-0354 GPF CF 95-2259 CF 01-1162, <http://cityplanning.lacity.org/cwd/framwk/chapters/09/09.htm> (accessed February 2, 2011).

Table 4.14-19 General Plan Policies Relevant to Solid Waste

No.	Policy
Solid Waste Element	
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* (adopted August 8, 2001), Chapter 9 (Infrastructure and Public Services), CPC 94-0354 GPF CF 95-2259 CF 01-1162, <http://cityplanning.lacity.org/cwd/framwk/chapters/09/09.htm> (accessed February 2, 2011).

■ Proposed Plan Policies

Table 4.14-20 (Proposed Granada Hills–Knollwood Community Plan Policies) and Table 4.14-21 (Proposed Sylmar Community Plan Policies) list policies of the proposed plans that are applicable to issues of Solid Waste.

Table 4.14-20 Proposed Granada Hills–Knollwood Community Plan Policies

Policy No.	Policy
Policy CF11.1	Waste Reduction. Promote advanced waste reduction and methods for all 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.
Policy CF11.2	On-site Recycling. Promote the inclusion of on-site facilities for recycling and waste reduction in single-family, multiple-family, commercial and industrial development projects that support the transformation of waste disposal into resource recovery and economic development opportunities.
PolicyCF11.3	Recycled Materials. Encourage recycling of construction material, both during construction and building operation, and the dismantling and reuse of materials rather than demolition and dumping.
Policy CF11.4	Interdepartmental Coordination. Assist the Bureau of in finding suitable sites for new solid waste facilities in Granada Hills–Knollwood, if necessary, addressing environmental justice issues.

Table 4.14-21 Proposed Sylmar Community Plan Policies

Policy No.	Policy
Policy CF11.1	Waste Reduction. Promote advanced waste reduction and methods for all 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.
Policy CF11.2	On-site Recycling. Promote the inclusion of on-site facilities for recycling and waste reduction in single-family, multiple-family, commercial and industrial development projects that support the transformation of waste disposal into resource recovery and economic development opportunities.
Policy CF11.3	Recycled Materials. Encourage recycling of construction material, both during construction and building operation, and the dismantling and reuse of materials rather than demolition and dumping.
Policy CF11.4	Interdepartmental Coordination. Assist the Bureau of Sanitation finding suitable sites for new solid waste facilities in Sylmar, if necessary, addressing environmental justice issues.

Consistency Analysis

The proposed plans include policies encouraging recycling and waste reduction, consistent with the policies contained in the City's General Plan Framework.

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 plans. The solid waste generated by reasonably expected capacity of the proposed plans is compared to City waste disposal capacity to assess the impact of the proposed plans on solid waste. While the proposed plans have capacities for population, housing, and employment slightly larger than the adjusted SCAG 2030 projections, for purposes of this analysis, the proposed plan's impacts on solid waste are based on the adjusted projections.

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 day²³⁵

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 plans 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 were no effects identified that would not have any impact with respect to solid waste.

²³⁵ City of Los Angeles, *L.A. CEQA Thresholds Guide* (2006), p. M.3-2.

■ Less-Than-Significant Impacts

Impact 4.14-6 **Development under the proposed plans would comply with federal, state, and local statutes and regulations related to solid waste. This impact would be *less than significant*.**

The proposed plans 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 Framework, 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 plans would comply with all solid waste policies and objectives; impacts are *less than significant*, and no additional mitigation measures are required.

Impact 4.14-7 **Implementation of the proposed plans would increase solid waste generation but would not result in the need for additional solid waste collection routes, recycling, or disposal facilities 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 ensure that this impact remains *less than significant*.**

Granada Hills–Knollwood

The Granada Hills–Knollwood CPA is located in a suburban area of the City that is predominantly developed with residential uses. As noted in Section 4.11 (Population, Housing, and Employment), the proposed plan in 2030 would accommodate a forecasted increase of up to 4,428 dwelling units (6,597 persons) and 5,019 new jobs compared to existing (2005) conditions. This population and employment increase would result in increased generation of solid waste.

The proposed plan would accommodate the forecasted 23,487 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 144 tons per day. Based on the number of anticipated jobs in the CPA at reasonably expected capacity of the proposed plan, nonresidential uses would generate 97 tons per day of solid waste. Total solid waste generation at reasonably expected capacity of the proposed plan would be approximately 240 tons per day, an increase of 49.50 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 expected to be generated from the proposed plan represents less than 4.3 percent of the remaining capacity of the landfill. If the entire 240.51 tons of solid waste generated by the proposed plan 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.

Table 4.14-22 (Proposed Granada Hills–Knollwood Community Plan Solid Waste Generation [2030]) describes the anticipated solid waste generation from the proposed plan.

	<i>Solid Waste Generation Rates^a</i>	<i>Existing Conditions (2005)</i>	<i>Solid Waste (tons/du/day)</i>	<i>Adjusted SCAG Forecast (2030)</i>	<i>Solid Waste (tons/du/day)</i>	<i>Net Change in Solid Waste</i>
Residential (du)	12.23 lbs/du/day	19,373	118.5	23,487	144	25.10
Employment	9.7 lbs/employee/day ^b	14,957	72.5	19,976	97	24.34
Total			191.0		240.51	49.50

SOURCE: Los Angeles Department of City Planning (2011).

du = dwelling unit

a. City of Los Angeles, *L.A. CEQA Thresholds Guide* (2006).

b. Represents a blended generation rate of commercial and industrial uses.

Existing Framework 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 CF11.1 and CF11.2 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, implementation of mitigation and compliance with existing and proposed City policies and requirements would ensure the impact would remain *less than significant*.

Sylmar

The Sylmar CPA is located in a suburban area of the City that is predominantly developed with residential uses. As noted in Section 4.11 (Population, Housing, and Employment), the proposed plan would accommodate a forecasted increase of up to 5,558 dwelling units (14,199 persons) and 6,041 new jobs compared to existing (2005) conditions. This additional development would result in increased generation of solid waste.

The proposed plan would accommodate the projected 23,487 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 146 tons per day. Based on the number of anticipated jobs in the CPA at

reasonably expected capacity of the proposed plan, nonresidential uses would generate 124.5 tons per day of solid waste. Total solid waste generation at reasonably expected capacity of the proposed plan would be approximately 270 tons per day, an increase of 63.29 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 expected to be generated from the proposed plan represents less than 4.8 percent of the remaining capacity of the landfill. If the entire 270.5 tons of solid waste generated by the proposed plan 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.

Table 4.14-23 (Proposed Sylmar Community Plan Solid Waste Generation [2030]) describes the anticipated solid waste generation from the proposed plan.

	<i>Solid Waste Generation Rates^a</i>	<i>Existing Conditions</i>	<i>Solid Waste (tons/du/day)</i>	<i>Proposed Plan</i>	<i>Solid Waste (tons/du/day)</i>	<i>Net Change in Solid Waste</i>
Residential (du)	12.23 lbs/du/day	18,329	112.1	23,887	146.1	33.99
Employment	9.7 lbs/employee/day ^b	19,619	95.1	25,660	124.5	29.30
Totals			207.2		270.5	63.29

SOURCE: Los Angeles Department of City Planning (2011).

du = dwelling unit

a. City of Los Angeles, *L.A. CEQA Thresholds Guide* (2006).

b. Represents a blended generation rate of commercial and industrial uses.

Existing Framework 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, which 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 CF9.1 through CF9.4 of the proposed plan, which promote recycling and waste reduction. Development pursuant to the proposed plans 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, implementation of mitigation and compliance with existing and proposed City policies and requirements would ensure the impact would remain *less than significant*.

■ Mitigation Measures

The proposed plans contain programs and policies designed to reduce generation of solid waste. Development under the proposed plans 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 plans:

- 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 plans 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 plans' 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 plans would continue to comply with all provisions of the AB 939, as enforced by CalRecycle and LABS. Therefore, implementation of the

proposed plans 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).
- . *L.A. CEQA Thresholds Guide*, 2006.
- . *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 County Department of Public Works, Environmental Programs Division. *Los Angeles County Countywide Integrated Waste Management Plan, 2006 Annual Report*, June 2008.
- 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.
- . Solid Resources: Curbside Recycling Program.
http://www.lacitysan.org/solid_resources/recycling/curbside/Curbside_Recycling.htm (accessed January 27, 2010).
- . Solid Resources Infrastructure Strategy Facilities Plan, November 2000.
http://www.lacitysan.org/solid_resources/strategic_programs/diversion_strategy/index.htm.
- . Special Materials: Hazardous Waste.
http://www.lacitysan.org/solid_resources/special/hhw/safe_centers/index.htm (accessed January 27, 2011).
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http://www.lacity.org/san/solid_resources/special/hhw/used_oil_centers.htm (accessed February 5, 2008).
- 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 of the EIR describes energy demand, including gas and electricity, and infrastructure within the Granada Hills–Knollwood and Sylmar CPAs 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 plans.

Data for this section were taken from variety of sources including the City of Los Angeles General Plan, Los Angeles Department of Water and Power, and Southern California Gas Company. 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.^{236,237} 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 renewables, which includes small hydroelectric, solar, wind, geothermal, biomass, and waste.²³⁸

■ 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.²³⁹

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 noncore customers, 412 MMcf per day for wholesale or international customers, and 43 MMcf per day for SoCalGas use or lost and unaccounted for (LUAF).²⁴⁰ Natural gas service is provided in accordance with SoCalGas's policies and

²³⁶ Los Angeles Department of Water and Power, Our Service and History, <http://www.laLADWP.com/laLADWP/cms/laLADWP000508.jsp> (accessed February 10, 2009).

²³⁷ Los Angeles Department of Water and Power, Quick Facts and Figures, <http://www.laLADWP.com/laLADWP/cms/laLADWP000509.jsp> (accessed January 6, 2011).

²³⁸ Los Angeles Department of Water and Power, Quick Facts and Figures, <http://www.laLADWP.com/laLADWP/cms/laLADWP000509.jsp> (accessed January 6, 2011).

²³⁹ Southern California Gas Company, Company Profile, <http://www.socalgas.com/aboutus/profile.html> (accessed January 27, 2011).

²⁴⁰ California Gas and Electric Utilities, *California Gas Report 2010* (2010).

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.²⁴¹

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.

²⁴¹ California Gas and Electric Utilities, *California Gas Report 2010* (2010).

Local

City of Los Angeles General Plan Framework

The City of Los Angeles Framework, adopted December 1996 and amended most recently in August 2001, is a long range, citywide, comprehensive growth strategy. The Framework includes policies related 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 Framework includes policies that address deficiencies, including the expansion of public services and infrastructure commensurate with levels of demand.

Policies from the Framework related to power are listed in Table 4.14-24 (General Plan Policies Relevant to Energy).²⁴²

Table 4.14-24 General Plan Policies Relevant to Energy	
Policy 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 DWP 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, <i>The Citywide General Plan Framework: An Element of the City of Los Angeles General Plan</i> (adopted August 8, 2001), Chapter 9 (Infrastructure and Public Services), CPC 94-0354 GPF CF 95-2259 CF 01-1162, http://cityplanning.lacity.org/cwd/framwk/chapters/09/09.htm (accessed February 2, 2011).	

²⁴² Los Angeles Department of City Planning, *The Citywide General Plan Framework: An Element of the City of Los Angeles General Plan* (adopted August 8, 2001), Chapter 9 (Infrastructure and Public Services), CPC 94-0354 GPF CF 95-2259 CF 01-1162, <http://cityplanning.lacity.org/cwd/framwk/chapters/09/09.htm> (accessed February 2, 2011).

■ Proposed Plan Policies

Table 4.14-25 (Proposed Granada Hills–Knollwood Community Plan Policies) and Table 4.14-26 (Proposed Sylmar Community Plan Policies) list policies of the proposed plans that are applicable to issues of Energy.

Table 4.14-25 Proposed Granada Hills–Knollwood Community Plan Policies	
<i>Policy No.</i>	<i>Policy</i>
Policy CF13.1	Utility 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.
Policy CF13.2	Electrical Facilities. Work with LADWP to ensure that adequate electrical facilities are available to meet the demand of existing and future developments and conservation techniques are integrated into new and existing development projects.
Policy CF13.3	Facility Design. Support the construction of well-designed power system facilities, including receiving and distribution stations, so that they are in harmony with the surrounding neighborhood.
Policy CF13.4	Undergrounding Utilities. Provide for the undergrounding of new and existing electrical distribution lines unless it is determined to be economically or practically infeasible as a result of significant environmental constraints.
Policy CF13.5	Energy Conservation. Integrate energy conservation techniques into new and existing development projects.
Policy CF14.1	Easements and Rights-of-Way. Consider opportunities for the establishment of new pocket parks, recreation areas and trails that provide public access through the easements and rights-of-way of the flood control channels and the transmission lines, linking large portions of the watershed to other areas throughout the community.
Policy CF14.2	Runoff Capture. Encourage the capture and infiltration of stormwater along existing power line easements for groundwater recharge, water quality benefits, and habitat restoration opportunities.
Policy CF15.1	Energy Management. Ensure efficient and effective energy management while providing appropriate levels of lighting to meet safety needs.
Policy CF15.2	Lighting Integration. 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.
Policy CF15.3	Assessment Districts. Coordinate efforts between the community and the BSL to establish new Street Lighting Assessment Districts in the older areas of the community in need of new or updated street lighting infrastructure.

Table 4.14-26 Proposed Sylmar Community Plan Policies	
<i>Policy No.</i>	<i>Policy</i>
Policy CF13.1	Utility 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.
Policy CF13.2	Electrical Facilities. Work with LADWP to ensure that adequate electrical facilities are available to meet the demand of existing and future developments and conservation techniques are integrated into new and existing development projects.
Policy CF13.3	Facility Design. Support the construction of well-designed power system facilities, including receiving and distribution stations, so that they are in harmony with the surrounding neighborhood.
Policy CF13.4	Undergrounding Utilities. 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 constraints.
Policy CF13.5	Green Technology. 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 green house gases, and increase the reliability of the City's power supply.

Table 4.14-26 Proposed Sylmar Community Plan Policies	
<i>Policy No.</i>	<i>Policy</i>
Policy CF14.1	Easements and Rights-of-Way. Consider opportunities for the establishment of new pocket parks, recreation areas and trails that provide public access through the easements and rights-of-way of the flood control channels and the transmission lines, linking large portions of the watershed to other areas throughout the community.
Policy CF14.2	Runoff Capture. Encourage the capture and infiltration along existing power line easements for groundwater recharge, water quality benefits, and habitat restoration opportunities.
Policy CF15.1	Energy Management. Ensure efficient and effective energy management while providing appropriate levels of lighting to meet safety needs.
Policy CF15.2	Lighting Integration. 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.
Policy CF15.3	Assessment Districts. Coordinate efforts between the community and the BSL to establish new Street Lighting Assessment Districts in the older areas of the community in need of new or updated street lighting infrastructure.

Consistency Analysis

The proposed plans will replace the existing Community Plans for both Granada Hills–Knollwood and Sylmar. 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 plans 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 plans would allow growth, all discretionary development under the proposed plans 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 plans would be consistent with the identified Framework policies.

4.14.18 Project Impacts and Mitigation

■ Analytic Method

To determine potential impacts on energy supplies resulting from implementation of the proposed plans, 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 plans, 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 Appendix G of the CEQA Guidelines 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 plans 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

■ Effects Not Found to Be Significant

There were no effects identified that would not have any impact with respect to energy.

■ Less-Than-Significant Impacts

Impact 4.14-8 Implementation of the proposed plans 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 MM4.14-12 and compliance with local, state, and federal regulations would reduce this impact to *less than significant*.

Granada Hills–Knollwood

Electricity

The Granada Hills–Knollwood 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 Rinaldi Receiving Station located at 15901 Rinaldi Street and has an ultimate firm capacity of 600 MVA. The LADWP routinely plans capacity additions and changes at existing and new facilities as needed to supply area load.²⁴³

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 4.14-27 (Projected Electricity Demands—Granada Hills–Knollwood Community Plan), the total annual electricity consumption by build-out of the proposed plan is estimated to be approximately 203,698,029 kWh/yr, representing an increase of 62,055,967kWh/yr compared to existing conditions.

²⁴³ Charles, C. Holloway, Written correspondence with Manager of Environmental Assessment and Planning, Los Angeles Department of Water and Power (June 23, 2009).

Table 4.14-27 Projected Electricity Demands—Granada Hills–Knollwood Community Plan

<i>Land Use</i>	<i>Electricity Generation Rates</i>	<i>Existing Conditions</i>	<i>Existing Demand (kWh/yr)</i>	<i>Proposed Plan</i>	<i>Proposed Plan Demand (kWh/yr)</i>	<i>Net Difference in Electricity</i>
Residential	5,172 kWh/du/yr	19,373 du	100,197,156	23,487du	121,474,764	21,277,608
Commercial & Industrial*	10.8 kWh/sf/yr	2,911,636 sf	31,445,669	7,613,336 sf	82,224,029	50,778,360
Total			141,642,826		203,698,793	62,055,967

SOURCE: Southern California Air Quality Management District, *CEQA Air Quality Handbook* (1993).

du = dwelling unit; kWh = kilowatt-hour; sf = square feet

Consumption Rates: 5,172 kWh/du/yr for residential; 17.1kwh/sf/yr for office; 15.3 kWh/sf/yr for retail; & 5.3 kWh/sf/yr for industrial

* Commercial and Industrial generation rates based on a blended rate of commercial and industrial. Average commercial is office and retail with an average generation rate of 16.2 kWh/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 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 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 would not impact service reliability levels.²⁴⁴ However, increasing energy conservation and incorporation of alternative renewable energy sources (solar) into project designs are anticipated to substantially reduce demand for electricity.

Existing Framework 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 Granada Hills–Knollwood 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

²⁴⁴ Charles C. Holloway, Written correspondence with Manager of Environmental Assessment and Planning, Los Angeles Department of Water and Power (June 23, 2009).

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.²⁴⁵

Based on the information provided in Table 4.14-28 (Projected Natural Gas Demand [Granada Hills–Knollwood Community Plan]), the total annual natural gas consumption resulting from anticipated development under the proposed plan is estimated to be approximately 1,366,924,884 MMcf/yr or net increase of 355,632,474 MMcf/yr over current plan and existing uses.

Land Use	Natural Gas Generation Rates*	Existing Conditions	Existing Demand (MMcf/yr)	Proposed Plan	Proposed Plan Demand (MMcf/yr)	Net Difference in Natural Gas
Residential	47,016 cf/du/yr	19,373 du	910,840,968	23,487 du	1,104,264,792	193,423,824
Commercial/Industrial**	34.5 cf/sf/yr	2,911,636 sf	100,451,442	7,613,336 sf	262,660,092	162,208,650
Total					1,366,924,884	355,632,474

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: 3,918 cf/unit/mo for residential; 2.0 cf/sf/mo for office; 2.9 cf/sf/mo for retail; and 3.3 cf/sf/mo for industrial

* Monthly rates were multiplied by 12 to determine yearly consumption.

** Commercial and Industrial generation rates based on a blended rate of commercial and industrial. Commercial generation rates based on an average of office and retail with an average generation rate of 2.45 cf/sf/mo.

Existing Framework 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 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 development under 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*.

Sylmar

Electricity

The Sylmar 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 Rinaldi Receiving Station located at 15901 Rinaldi Street and has an

²⁴⁵ Christopher Baker, Written correspondence with Region Associate Engineer, Southern California Gas Company (April 3, 2009).

ultimate firm capacity of 600 MVA. The LADWP routinely plans capacity additions and changes at existing and new facilities as needed to supply area load.²⁴⁶

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 4.14-29 (Projected Electricity Demands—Sylmar Community Plan), the total annual electricity consumption by build-out of the proposed plan is estimated to be approximately 268,676,026.8 kWh/yr, representing an increase of 74,726,857kWh/yr compared to existing conditions.

<i>Land Use</i>	<i>Electricity Generation Rates</i>	<i>Existing Conditions</i>	<i>Existing Demand (kWh/yr)</i>	<i>Proposed Plan</i>	<i>Proposed Plan Demand (kWh/yr)</i>	<i>Net Difference in Electricity</i>
Residential	5,172 kWh/du/yr	18,329 du	94,797,588	23,887du	123,543,564	28,745,976
Commercial & Industrial*	10.8 kWh/sf/yr	9,181,628 sf	99,151,582	13,438,191 sf	145,132,463	45,980,881
Total			193,949,170		268,676,026.8	74,726,857

SOURCE: Southern California Air Quality Management District, *CEQA Air Quality Handbook* (1993).

du = dwelling unit; kWh = kilowatt-hour; sf = square feet

Consumption Rates: 5,172 kWh/unit/yr for residential; 17.1 kWh/sf/yr for office; 15.3 kWh/sf/yr for retail; and 5.3 kWh/sf/yr for industrial

* Commercial and Industrial generation rates based on a blended rate of commercial and industrial. Average commercial is office and retail with an average generation rate of 16.2kwh/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 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 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 would not impact service reliability levels.²⁴⁷ However, increasing energy conservation and incorporation of alternative renewable energy sources (solar) into project designs are anticipated to substantially reduce demand for electricity.

Existing Framework 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

²⁴⁶ Charles, C. Holloway, Written correspondence with Manager of Environmental Assessment and Planning, Los Angeles Department of Water and Power (June 23, 2009).

²⁴⁷ Charles C. Holloway, Written correspondence with Manager of Environmental Assessment and Planning, Los Angeles Department of Water and Power (June 23, 2009).

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 Sylmar 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.²⁴⁸

Based on the information provided in Table 4.14-30 (Projected Natural Gas Demand [Sylmar Community Plan]), the total annual natural gas consumption resulting from implementation of the proposed plan is estimated to be approximately 1,586,688,782 MMcf/yr, an increase of 408,166,352 MMcf/yr over existing uses.

<i>Land Use</i>	<i>Natural Gas Generation Rates*</i>	<i>Existing Conditions</i>	<i>Existing Demand (MMcf/yr)</i>	<i>Proposed Plan</i>	<i>Proposed Plan Demand (MMcf/yr)</i>	<i>Net Difference in Natural Gas</i>
Residential	47,016 cf/du/yr	18,329 du	861,756,264	23,887 du	1,123,071,192	261,314,928
Commercial/Industrial**	34.5 cf/sf/yr	9,181,628 sf	316,766,166	13,438,191 sf	463,617,590	146,851,424
Total			1,178,522,430		1,586,688,782	408,166,352

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: 3,918 cf/unit/mo for residential; 2.0 cf/sf/mo for office; 2.9 cf/sf/mo for retail; and 3.3 cf/sf/mo for industrial

* Monthly rates were multiplied by 12 to determine yearly consumption.

** Commercial and Industrial generation rates based on a blended rate of commercial and industrial. Commercial generation rates based on an average of office and retail with an average generation rate of 2.45 cf/sf/mo.

Existing Framework 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 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 development under the proposed plan would not exceed available or planned supply, new infrastructure would not be required to serve the CPA, other than localized

²⁴⁸ Christopher Baker, Written correspondence with Region Associate Engineer, Southern California Gas Company (April 3, 2009).

connections and improvements, which would not be anticipated to have significant environmental impacts. Therefore, this impact is *less than significant*.

■ Mitigation Measures

The proposed plans contain 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 plans:

- 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 impacts that achieve a significance level of less-than-significant or greater. 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 CCR Title 24, 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.²⁴⁹ 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*.

²⁴⁹ 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.

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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