4.16 UTILITIES AND SERVICE SYSTEMS

This section provides an overview of the utilities and service systems and evaluates the impacts associated with the proposed project. Topics addressed include water, wastewater, solid waste, and energy.

The proposed project is evaluated on the demand that could be placed on water, wastewater, solid waste, and energy service providers, whether this demand can be met without the need for additional infrastructure, and whether the proposed project would be in compliance with regulations governing the provision of the utility. Assessment of impacts on water, wastewater, solid waste, and energy conveyance infrastructure and supply generally includes the comparison of project-generated demand against existing and anticipated resource supplies and/or conveyance/treatment capacity.

WATER

REGULATORY FRAMEWORK

Federal

There are no federal water regulations applicable to the proposed project.

State

Executive Order S-06-08. On June 4th, 2008, California Governor Arnold Schwarzenegger issued Executive Order S-06-08, which declared that there is a Statewide drought and encouraged local water districts and agencies to "reduce water consumption locally and regionally for the remainder of 2008 and prepare for potential worsening water conditions in 2009." In response to the Executive Order, the City and the Los Angeles Department of Water and Power (LADWP) amended and implemented by ordinance the Emergency Water Conservation Plan (EWCP).

Urban Water Management Planning Act. In 1983, the California Legislature enacted the Urban Water Management Planning Act, which requires urban water suppliers to develop water management plans to actively pursue the efficient use of available supplies. Every five years, water suppliers are required to develop Urban Water Management Plans (UWMPs) to identify short-term and long-term water demand management measures to meet growing water demands. The LADWP, as a water supplier, has prepared and adopted an UWMP. The latest LADWP UWMP was completed in the year 2010.

In addition to the UWMP, there are several State regulations which govern water consumption within the City:

- Title 20, California Code of Regulations, Section 1605.1 - Mandates water conservation by establishing efficiency standards that give the maximum flow rate of all new shower heads, lavatory, sink faucets, and tub spout diverters.
- Health and Safety Code, Section 17921.3 - Requires all buildings to have low-flush toilets and urinals.
- Health and Safety Code, Section 116785 - Prohibits the installation of residential water softening or conditioning appliances unless certain conditions are met, and requires the installation of water conservation devices on fixtures using softened or conditioned water.
- Water Code, Section 10910 - Requires the identification of any public water system that may supply water for proposed projects that are subject to CEQA and provides guidelines to include in the water supply assessment. A water supply assessment would be required under the following circumstances:
  - A proposed residential development of more than 500 dwelling units;

- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A proposed hotel or motel, or both, having more than 500 rooms;
- A mixed-use project that includes one or more of the projects specified in this subdivision; and/or
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

Water Conservation Act. In 2009, the Water Conservation Act was enacted requiring water agencies to reduce per capita water use by 20 percent by 2020 (known as 20x2020). This includes increasing recycled water use to offset potable water use. Water suppliers are required to set a water use target for 2020 and an interim target for 2015 using one of four methods stipulated in the Act. Failure to meet adopted targets will result in the ineligibility of a water supplier to receive water grants or loans administered by the State. In compliance with the Act, LADWP has calculated its baseline per capita water use, its urban use target for 2020, and its interim water use target for 2015. **Table 4.16-1** details the results of LADWP's calculations.

TABLE 4.16-1: 20x2020 BASE AND TARGET DATA

20x2020 Required Data	Gallons Per Capita per Day (GPCD)
BASE PER CAPITA DAILY WATER USE	
10-Year Average /a/	152
5-Year Average /b/	145
2020 TARGET USING METHOD 3 /c/	
95% of Hydrologic Region Target (149 gpcd)	142
95% Of Base Daily Capita Water Use 5-Year Average (145 gpcd)	138
Actual 2020 Target	138
2015 Interim Target	145

/a/ Ten-year average based on fiscal year 1995/96 to 2004/05
/b/ Five-year average based on fiscal year 2003/04 to 2007/08
/c/ Methodology requires smaller of two results to be actual water use target to satisfy minimum water use target.
SOURCE: *LADWP Urban Water Management Plan 2010, Chapter Three: Water Conservation, Exhibit 3C*, page 52.

Water Supply Assessments. In 2001, the California State Legislature approved Senate Bill (SB) 610, which amended Section 21151.9 of the Public Resources Code and Sections 10910 et seq. of the Water Code requiring the preparation of a "water supply assessment" (WSA) for large developments (e.g., more than 500 dwelling units or nonresidential equivalent). These assessments, prepared by "public water systems" responsible for service, address whether adequate existing or projected water supplies are available to serve future development occurring under proposed project. 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.

Water Conservation in Landscaping Act. In 2006, the Water Conservation in Landscaping Act was enacted to resolve outdoor water waste through improvements in irrigation efficiency and selection of plants requiring less water. The Act required an update to the existing local Model Water Efficiency Landscape Ordinance.

Local

City of Los Angeles General Plan (Framework). The Framework was adopted in 1996 and recently amended in August 2001. The Framework is a general, long-term, programmatic document that has goals and policies that are implemented by the various individual elements of the City of Los Angeles General Plan. The goals, objectives, and policies of the Framework that are related to water supply, storage, and delivery infrastructure are listed in **Table 4.16-2**.

TABLE 4.16-2: RELEVANT GENERAL PLAN WATER SUPPLY GOALS, OBJECTIVES, AND POLICIES

Goal/Objective/Policy	Goal/Objective/Policy Description
Goal 9C	Adequate water supply, storage facilities, and delivery system to serve the needs of existing and future residents and businesses.
Objective 9.8	Monitor and forecast water demand based upon actual and predicted growth.
Policy 9.8.1	Monitor water usage and population and job forecast to project future water needs.
Objective 9.9	Manage and expand the City's water resources, storage facilities, and water lines to accommodate projected population increases and new or expanded industries and businesses.
Policy 9.9.1	Pursue all economically efficient water conservation measures at the local and statewide level.
Policy 9.9.2	Develop reliable and cost-effective sources of alternative water supplies, including water reclamation and exchanges and transfers.
Policy 9.9.3	Protect existing water supplies from contamination, and clean up groundwater supplies so those resources can be more fully utilized.
Policy 9.9.4	Work to improve water quality and reliability of supply from the State Water Project and other sources.
Policy 9.9.5	Maintain existing rights to groundwater and ensure continued groundwater pumping availability.
Policy 9.9.6	Identify the needs for land and facilities necessary to provide an adequate and reliable water supply and develop those facilities in an environmentally and socially sensitive way.
Policy 9.9.7	Incorporate water conservation practices in the design of new projects so as not to impede the City's ability to supply water to its other users or overdraft its groundwater basins.
Policy 9.9.8	Design projects located in hillside areas so as to maintain the City's ability to suppress wildfires.
Policy 9.9.9	Clean or replace where necessary, deficient water distribution lines in the City.
Objective 9.10	Ensure that water supply, storage, and delivery systems are adequate to support planned development.
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.
Objective 9.11	Ensure, to the extent possible, the continued provision of water capacity, quality and delivery after an earthquake or other emergency.
Policy 9.11.1	Provide for the prompt resumption of water service with adequate quantity and quality of water after an emergency.

SOURCE: City of Los Angeles, *The Citywide General Plan Framework, An Element of the City of Los Angeles General Plan*, re-adopted 2001**.**

Emergency Water Conservation Plan (EWCP). The City's EWCP is found in LAMC Chapter XII, Article I. The purpose of the EWCP is to provide a mandatory water conservation plan to minimize the effect of a water shortage to City water users. The provisions outlined within the EWCP are intended to significantly reduce the consumption of water over an extended period of time, thereby extending the available water required for the City water users while reducing the hardship of the City and the general public to the greatest extent possible. The EWCP contains five water conservation phases which correspond

with the severity of water shortage. Each increase in phase corresponds with more stringent water conservation measures.[1]

Model Water Efficient Landscape Ordinance. In 2009, the City adopted the Model Water Efficient Landscape Ordinance in compliance with the State Water Conservation in Landscaping Act. The ordinance requires development of water budgets for landscaping, reduction of erosion and irrigation related runoff, utilization of recycled water if available, irrigation audits, development of requirements for landscape and irrigation design, and scheduling of irrigation based on localized climate for new construction and redevelopment projects.

Landscape Ordinance No. 170,978. In 1996, the City's Landscape Ordinance became effective with an overarching goal to improve the efficient use of outdoor water. This Ordinance was amended in 2009 to comply with the Water Conservation in Landscaping Act of 2006 and the Model Water Efficient Landscape Ordinance.

Water Efficiency Requirements Ordinance. In 2009, the City further increased its water efficiency mandates with the adoption of the Water Efficiency Requirements Ordinance. The ordinance establishes water efficiency requirements for new developments and renovations of existing buildings by requiring installation of high efficiency plumbing fixtures in all residential and commercial buildings.

Retrofit on Resale Ordinance. In 1988, the City adopted a plumbing retrofit ordinance to mandate the installation of conservation devices in all properties and to require water-efficient landscaping in all new construction. The ordinance was amended in 1998, requiring the installation of ultra-low-flush toilets and water saving showerheads in single- and multi-family residences prior to resale. LADWP has explored the expansion of the City's Retrofit on Resale Ordinance to include non-residential properties.

Ordinance No. 165,004. Adopted in 1989, this ordinance effectively reduces Citywide water consumption by requiring new buildings to install water conservation fixtures, such as ultra low-flush toilets, urinals, taps, and showerheads, and plumbing fixtures which reduce water loss from leakage in order to obtain building permits in the City of Los Angeles. In addition, there are provisions requiring xeriscaping – the use of low-maintenance, drought-resistant plants.

Ordinance No. 166,080. Adopted in 1991, this ordinance prohibits the use of hoses to wash sidewalks, walkways, driveways, or paved parking areas.

EXISTING SETTING

Water Supply

The LADWP manages the water supply for the City of Los Angeles. The LADWP serves approximately 4.1 million residents, 716,531 water connections, and over 7,100 miles of water pipelines. The City's water supply has four sources of water: the Metropolitan Water District (MWD), the Los Angeles Aqueduct (LAA), groundwater, and recycled water. These four water sources comprise 71, 18, 10, and 1 percent of the City's water supply, respectively.[2] **Table 4.16-3** shows the historic LADWP water supplies. During 2008, LADWP supplied approximately 642,041 acre-feet.[3]

[1]LADWP, *Fact Sheet: Revised Water Conservation Ordinance*, 2010.

[2]LADWP, Facts and Figures website, *https://www.ladwp.com/ladwp/faces/ ladwp/aboutus/a-power/a-p-factandfigures?_adf.ctrl-state=1cotehi1l9_4&_afrLoop=49530163083866*, accessed April 11, 2011.

[3]An acre-foot of water is equivalent to 325,851 gallons of water.

TABLE 4.16-3: LADWP WATER SUPPLY

Year	LAA (acre-feet)	Local Groundwater (acre-feet)	MWD (acre-feet)	Recycled Water (acre-feet)	Transfer, Spread, Sills, and Storage (acre-feet)	Total (acre-feet)
1998	466,836	80,003	56,510	1,326	7,769	596,906
1999	309,037	170,660	164,112	1,812	-3,507	649,128
2000	255,183	87,946	336,116	1,998	2,569	678,674
2001	266,923	79,073	309,234	1,675	-1,994	658,899
2002	179,338	92,376	410,329	1,949	-1,405	685,392
2003	251,942	90,835	322,329	1,759	2,528	664,338
2004	202,547	71,731	391,934	1,774	-2,958	670,944
2005	368,939	56,547	185,346	1,401	3,140	608,993
2006	378,922	63,270	188,781	4,890	-1,336	637,199
2007	129,400	89,018	439,436	3,369	1,044	660,449
2008	147,365	60,149	429,110	7,081	1,664	642,041

SOURCE: City of Los Angeles Department of Water and Power, 2010.

Local Groundwater. The LADWP traditionally extracts groundwater from nine well fields throughout City-owned property within Owens Valley, and three local groundwater basins. In accordance with a long-term groundwater management plan, groundwater pumped from Owens Valley by LADWP is used in Owens Valley and in the City. Additionally, LADWP currently exercises its adjudicated extraction rights in three local groundwater basins: San Fernando, Sylmar, and Central. **Table 4.16-4** lists the quantities of water the LADWP extracted from the Owens Valley, San Fernando, Sylmar, and Central groundwater basins. A detailed discussion of these groundwater basins is found in Section 4.9 Hydrology and Water Quality.

TABLE 4.16-4: LADWP GROUNDWATER EXTRACTIONS

Water Year (October-September)	Owens Valley Groundwater Basin (acre-feet) /a/	San Fernando Groundwater Basin (acre-feet)	Sylmar Groundwater Basin (acre-feet)	Central Groundwater Basin (acre-feet)	Total (acre-feet)
2004-2005	85,820	49,085	1,110	13,401	149,416
2005-2006	57,412	38,042	2,175	13,725	111,354
2006-2007	58,621	76,251	3,919	13,609	152,400
2007-2008	60,337	50,009	2,997	10,754	124,097
2008-2009	68,149	52,846	868	11,817	133,680

/a/ The groundwater extraction values from the Owens Valley Groundwater is from April 1 to March 31.
SOURCE: City of Los Angeles Department of Water and Power, 2010.

As detailed in **Table 4.16-4** above, over the course of the 2008-2009 water year, LADWP pumped 52,846, 868, and 11,817 acre-feet of water from the San Fernando, Sylmar, and Central Groundwater Basins, respectively. The LADWP plans to continue production from its groundwater basins in the coming years to offset reductions in imported supplies. However, extraction from the groundwater basins is limited by the water quality and overdraft protection. Both the LADWP and California Department of Water Resources (DWR) have programs in place to monitor wells to prevent overdraft. LADWP's groundwater pumping practice is based on a "safe-yield" operation. The objective, over a period of years, is to extract an amount of groundwater equal to the native and imported water that recharges the groundwater basins.

Los Angeles Aqueduct (LAA). Snowmelt runoff from the Eastern Sierra Nevada Mountains and groundwater from Owens Valley Groundwater Basin are collected and conveyed to the City via the LAA. LAA supplies can fluctuate yearly due to varying hydrologic conditions. In recent years, the LAA supplies have been less than the historical average because of LADWP's obligations to perform environmental restoration in Mono and Inyo Counties. Average deliveries from the LAA system have been approximately 239,100 acre-feet of water annually over the last five fiscal years. Based on computer modeling results,

LADWP projects that the average annual LAA delivery is expected to be approximately 244,000 acre-feet per year in year 2030.[4]

Metropolitan Water District of Southern California (MWD). The LADWP purchases water from the MWD to supplement its water supplies from the LAA and local groundwater basins. The MWD is the largest water wholesaler for domestic and municipal uses in Southern California. The MWD imports its water supplies from Northern California through the State Water Project (SWP), California Aqueduct (CAA), and the Colorado River through the MWD-owned Colorado River Aqueduct. The MWD is a consortium of 26 member agencies, which includes the LADWP. The MWD service area encompasses the service areas of its 26 member agencies, approximately 5,200 square miles, and includes portions of the Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura Counties. Per Section 135 of the MWD Act, each of MWD's 26 member agencies has a preferential right to purchase water from the MWD.[5] As of June 30, 2006, the LADWP has a preferential right to purchase 21.16 percent of MWD's total water supply.

Due to effects by dry weather conditions and environmental restrictions on water pumping operations within San Francisco Bay/Sacramento-San Joaquin River Delta (Delta), the MWD service area may not meet future water demand of its member agencies. To address the possibility that MWD water supplies may not meet member water demand, the MWD and its 26 member agencies have prepared a Water Supply Allocation Plan (WSAP). If the MWD cannot meet member water demand for any given year, it uses a formula within the WSAP to allocate water to member agencies in a fair and efficient manner.

Recycled Water. Recycled water is produced by the Hyperion Treatment Plant (HTP), Terminal Island Water Reclamation Plant (TIWRCP), Donald C. Tillman Water Reclamation Plant (DTWRP), and the Los Angeles-Glendale Water Reclamation Plan (LAGWRP). Currently, recycled water is provided for landscape irrigation and commercial uses. **Table 4.16-5** provides details on these treatment plants services, capacity, and average daily flows.

TABLE 4.16-5: WASTEWATER TREATMENT PLANTS SUMMARY

Wastewater Treatment Plants	Treatment Level	Capacity (mgd)	Average Flows (mgd)
Donald C. Tillman Water Reclamation Plant	Tertiary to Title 22 Standards with Nitrification/Dentrification	80	32
Los Angeles - Glendale Water Reclamation Plant	Tertiary to Title 22 Standards with Nitrification/Dentrification	20	17
Terminal Island Water Reclamation Plant	Tertiary; Advanced treatment (MF/RO) of 5 mgd	30	16
Hyperion Treatment Plant	Full secondary	450	299

SOURCE: LADWP, *2010 Urban Water Management Plan*; *Exhibit 4C: Wastewater Treatment Plants Summary,* 2010, page 88.

Water Conservation

Los Angeles consistently ranks among the lowest in per person water consumption when compared to California's largest cities.[6] This significant accomplishment has resulted from the City's sustained implementation of effective water conservation policies, programs, and ordinances since the 1980s. The City's commitment to effectively implementing water conservation measures is most clearly illustrated by Citywide water use during FY 2009/2010 being below 1979 water use levels.[7]

[4]LADWP, *2010 Urban Water Management Plan,* Chapter 11: Water Supply Reliability and Financial Integrity, page 228, January 2011.

[5]The Metropolitan Water District Act was passed in 1928 to form the MWD. The MWD Act governs how the MWD operates within the State.

[6]LADWP, *2010 Urban Water Management Plan,* Chapter Three: Water Conservation, January 2011, page 47.

[7]*Ibid.*

Water conservation can be seen as both a demand control measure and/or a source of supply. LADWP identifies conservation as a crucial supply asset in a continued effort to reduce MWD purchases and increasing local supply reliability through 2035.[8] To this end, LADWP has set a water conservation goal in the Water Supply Action Plan of reducing potable water demands by an additional 50,000 acre-feet per year by 2030. Furthermore, State legislation, which postdates several City water conservation ordinances, has only strengthened the City's commitment to water conservation and provides added assurance that the City will continue its leadership role in managing demand for water in the near and distant future.

Water Supply Treatment Processes[9]

LADWP supplies water that meets or exceeds all health-related State and federal standards. LADWP accomplishes such standards by: (1) filtration of the LAA supply; (2) security measures safeguarding access to water supply and storage areas; (3) control of algae growth in groundwater and reservoirs; (4) continuous disinfection of water entering mains; and (5) regular water quality testing, inspection, and cross-control prevention.

All water coming from the LAA, the California Aqueduct, and the Colorado River Aqueduct is filtered and treated at the Los Angeles Aqueduct Filtration Plant to ensure a safe drinking water supply. Once at the filtration plant, all water travels through screens that remove environmental debris such as twigs and dead leaves. Bacteria and other impurities that can affect taste, odor, and color are eliminated by Ozone injections, a super-charged oxygen molecule with powerful disinfecting properties. Treatment chemicals are then quickly dispersed into the water to make fine particles called floc, which are subsequently removed via a 6-foot-deep coal filter. The final step is the addition of Chlorine and Fluoride which ensure lasting disinfection and strengthen tooth enamel.

The City's groundwater supply in the San Fernando and Central Basins is generally clean. LADWP pumps from the clean parts of the basins and disinfects this groundwater with chlorine as a safeguard against microorganisms. Additionally, LADWP continuously monitors and ensures that all water meets water quality standards and results are far below the maximum contaminant levels permitted by federal or State regulations.

Existing Water Demand

The estimated water usage of existing uses within the West Adams CPA is shown in **Table 4.16-6**. The total water usage within the West Adams CPA is nearly 22.5 million gallons per day (mgd) of water, or 25,175 acre-feet per year. Single-family, multi-family, and commercial land uses within the West Adams CPA have an estimated water usage of approximately 8.9, 9.3, and 2.9 mgd of water, respectively. Industrial, public facilities, and open space land uses within the West Adams CPA have an estimated water usage of approximately 1.3, 0.015, and 0.041 mgd, respectively. Water usage within the West Adams CPA represents approximately four percent of total water supplied by LADWP to the City in 2008.

TABLE 4.16-6: ESTIMATED EXISTING WATER USAGE WITHIN THE WEST ADAMS CPA

Use	Quantity	Units	Water Usage Factor /a/	Water Usage (gpd)
Single-Family Residential	24,829	dwelling units	359	8,913,611
Multi-Family Residential	41,586	dwelling units	224	9,315,264
Commercial	34,014	employees	84	2,857,176
Industrial	10,097	employees	132	1,332,804
Open Space	179	employees	84	15,030
Public Facilities	490	employees	84	41,196
			Total Existing Water Usage	**22,475,081**

/a/ Water usage factors were obtained from the *LADWP 2010 Urban Water Management Plan, Exhibit 2H: Baseline Unit Water Use Rates (2005-2008)*.
SOURCE: City of Los Angeles Department of City Planning, Demographics Unit, 2008.

[8] LADWP, *2010 Urban Water Management Plan*, Chapter Three: Water Conservation, January 2011, page 224.
[9] LADWP, *2010 Drinking Water Quality Report*, 2011.

THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant impact related to water demand and/or conveyance infrastructure if it would:

- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; and/or
- Have sufficient water supplies available to serve the project from existing entitlements and resource, or are new or expanded entitlements needed.

City of Los Angeles CEQA Thresholds Guidelines

In addition, based on the criteria set forth in the City of Los Angeles CEQA Thresholds Guide (2006), the determination of significance shall be made on a case-by-case basis, considering the following factors:

For impacts related to water demand and/or conveyance infrastructure:

- Would implementation of the proposed project cause the Community Plan area to exceed the projected growth in population, housing, or employment for the year of the project occupancy/buildout?
- Would the proposed project's water consumption require the construction of additional off-site water infrastructure?

The determination of significance is made by considering the following factors:

- The total estimated water demand for the project as compared to existing water demand;
- Whether sufficient capacity exists in the water infrastructure that would serve the project, taking into account the anticipated conditions at project buildout; and,
- The degree to which scheduled water infrastructure improvements or project design features would reduce or offset service impacts.

IMPACTS

The proposed project is the adoption of the West Adams New Community Plan and its implementing ordinances. These ordinances, which include standards and guidelines for projects within the West Adams CPA, include a Community Plan Implementation Overlay District (CPIO) containing several subdistricts throughout the plan area, as well as amendments to the existing Crenshaw Corridor Specific Plan. The proposed project further involves General Plan Amendments and zone changes to create consistency with the City's General Plan Framework Element, as well as create consistency between both planned and existing uses of parcels and their relationship to surrounding areas. Through implementation of the CPIO, the proposed project further restricts detrimental uses, incentivizes development in targeted areas, and provides development standards to ensure that new construction is consistent with neighborhood character, as well as corrects minor errors within the existing West Adams Community Plan. While there are water impacts to consider within the West Adams CPA, they are subject to the State and local policies and guidelines mentioned above; therefore, the proposed West Adams New Community Plan and its implementing ordinances do not contain any specific guidelines that would affect water resources.

For discussion of impacts associated with the proposed project, full implementation of the project (year 2030) will be analyzed.

Construction

The West Adams New Community Plan describes the capacity for future development for a portion of the City and does not constitute a commitment to any project-specific construction. Therefore, no further discussion of construction impacts is necessary.

Operations

Water Supply

Water supplies for the City are obtained, managed, and distributed by LADWP, who acquires water from the LAA, MWD water purchases, local groundwater pumping, and recycled water. As detailed in **Table 4.16-3** above, LADWP supplied approximately 642,041 acre-feet of water in 2008. Of this, LAA and MWD collectively accounted for 83 percent of total water supplied in 2008. By year 2030, LADWP projects total available water supplies to increase to 701,200 acre-feet per year.[10]

In order to evaluate the effects of the proposed project on water supplies, it is necessary to also evaluate the expected demand for water supplies as a result of full implementation of the proposed project. The primary factors affecting demand for water supplies by an aggregate consumer base are: total population, housing unit growth, and total employment. By considering these factors, water demand forecasts can be made in two main ways: 1) per capita water usage factors and anticipated population; or, 2) land use water usage factors and a corresponding unit base (i.e. total number of units for residential uses, or total square footage for non-residential uses). Determining the best method to use depends mostly on the information available at the time of the analysis. **Table 4.16-7** uses a combination of both methods. When forecasting residential water demand for a mixture of single-and multi-family units, it is best to calculate using land use water usage factors and total number of units because water demand by single-family units tends to be higher than their multi-family counterparts.[11] To forecast water demand from commercial, industrial, and open space land uses, **Table 4.16-7** utilizes the per capita water usage factors and total employment expected for those uses.

TABLE 4.16-7: ESTIMATED WATER USAGE OF THE PROPOSED PROJECT

Use	Quantity	Units	Water Usage Factor (2026-2030) /a/	Water Usage (gpd)
Single-Family Residential /b/	30,903	dwelling units	333	10,290,699
Multi-Family Residential	55,215	dwelling units	211	11,650,365
Commercial	44,329	employees	77	3,413,333
Industrial	5,780	employees	121	699,390
Open Space	216	employees	77	16,632
Public Facilities	2,787	employees	77	214,599
			Estimated Total Water Usage of Proposed Plan	**26,285,018**
			Less Existing Water Usage	**22,475,081**
			Net Water Usage of Proposed Plan	**3,809,937**

/a/ Water usage factors were obtained from the *LADWP 2010 Urban Water Management Plan, Exhibit 2I:Projected Unit Water Use.*
/b/ The total dwelling units for the Single-Family Residential category were determined by totaling dwelling units in the R-1 and R-1.5 zones.
SOURCE: City of Los Angeles, Demographics Unit, 2008. TAHA, 2012.

The proposed project could potentially allow for a 29.6 percent growth in housing development and a 18.6 percent increase in employment by year 2030. **Table 4.16-7** details the estimated water usage within the West Adams CPA by land use resulting from full implementation of the proposed project. Implementation of the proposed project in year 2030 would result in an increase of 3,809,937 gallons per day over existing water usage in the West Adams CPA. However, this increase in demand for water is expected

[10]LADWP, *2010 Urban Water Management Plan,* Chapter 11: Water Supply Reliability and Financial Integrity, January 2011, page 229.
[11]City of Los Angeles, *CEQA Thresholds Guide*, 2006, page M.1-4.

to increase incrementally over the lifespan of the proposed project. This amounts to a 17 percent increase in water demand as compared to existing water usage within the West Adams CPA. When compared to total water supplied by LADWP in 2008, the increase in water usage at full implementation of the proposed project in year 2030 would represent an additional 0.66 percent of water supplied by LADWP in year 2008 (**Table 4.16-3** above). Of total expected water supplies available in year 2030, the water usage increase within the West Adams CPA due to the proposed project would represent an additional 0.61 percent of total expected water supplies.

Given the 20-year lifespan of the proposed project, it is important to consider the City's commitment to water conservation in conjunction with supply and demand forecasts to fully evaluate the impacts of the proposed project on water supply resources. Los Angeles consistently ranks among the lowest in per person water consumption when compared to California's largest cities.[12] This significant accomplishment has resulted from the City's sustained implementation of effective water conservation policies, programs, and ordinances since the 1980s. The City's commitment to effectively implementing water conservation measures is most clearly illustrated by Citywide water use during Fiscal Year 2009/2010 being below 1979 water use levels. Moreover, water use in Fiscal Year 2009/2010 was nearly 20 percent lower than water use in Fiscal Year 2006/2007 with single-family residential water use 25 percent lower, multi-family water use 11 percent lower, commercial water use 15 percent lower, and governmental water use 33 percent lower.[13] Furthermore, State legislation, which postdates several City water conservation ordinances, has only strengthened the City's commitment to water conservation and provides added assurance that the City will continue its leadership role in managing demand for water in the near and distant future. **Table 4.16-8** details LADWP's projected future water conservation savings by major customer classification through 2035. Total anticipated water savings from conservation is projected to be 53,420 acre-feet in Fiscal Year 2029/2030, which is 17.4 billion gallons of water. The increase in demand for water supplies within the West Adams CPA due to full implementation of the proposed project is only 8 percent of total projected water conservation savings when the proposed project reaches full implementation in year 2030.

TABLE 4.16-8: ACTIVE CONSERVATION PROJECTIONS BY SECTOR

	Acre-feet per Fiscal Year				
Sector	**2014/2015**	**2019/2020**	**2024/2025**	**2029/2030**	**2034/2035**
Single-Family Residential	3,416	5,882	8,349	10,815	12,249
Multi-Family Residential	871	1,504	2,137	2,770	3,150
Commercial/Government	7,969	16,000	24,030	32,061	39,629
Industrial	1,924	3,847	5,824	7,774	9,339
Total Active Conservation Projections	**14,180**	**27,260**	**40,340**	**53,420**	**64,368**

SOURCE: LADWP, *2010 Urban Water Management Plan*, Chapter 3: Water Conservation, Exhibit 3I, page 76.

Therefore, the anticipated increase in demand for water supplies within the West Adams CPA represents a small proportion of total anticipated water supplies in year 2030. Additionally, water conservation efforts, a cornerstone of the City's water policy agenda, can be relied on to effectively attenuate some of the added demand for water resources as the proposed project gradually reaches full implementation. Moreover, the impacts to water demand for future water resources are minimized because full implementation of the proposed project in year 2030 would occur incrementally over the 20-year lifespan of the proposed project. Therefore, the proposed project would result in less-than-significant impacts related to water supplies.

Water Supply Treatment and Conveyance Infrastructure

Full implementation of the proposed project would increase the water usage by an additional 0.66 percent over existing water supplied by LADWP to the entire City in 2008. Water usage increases resulting from the proposed project are anticipated to occur incrementally through the year 2030. This is equally true for increases in water supply treatment provisions. The process by which drinking water is treated is built into

[12] LADWP, *2010 Urban Water Management Plan,* Chapter Three: Water Conservation, January 2011, page 47.
[13] *Ibid.*

the delivery system, which would not need to be enhanced or expanded to meet increased needs of the proposed project.

The LAA was responsible for 23 percent of all water supplied by LADWP in 2008 (**Table 4.16-3**, above). However, the design capacity of the LAA is rated at 775 cubic feet per second. Assuming sustained operations at maximum flow capacity for an entire year, LAA has the potential to deliver 561,074 acre-feet per year. This amount is over 87 percent of total water deliveries in year 2008 by LADWP to all of Los Angeles. Thus, considering the potential delivery capacity of the LAA alone, the potential delivery capacity of the existing water conveyance infrastructure has the capacity to meet expected increases in demand due to the proposed project. Therefore, the proposed project would result in less-than-significant impacts related to water supply treatment and conveyance infrastructure.

MITIGATION MEASURES

Construction

The West Adams New Community Plan describes the capacity for future development for a portion of the City and does not constitute a commitment to any project-specific construction. Therefore, no mitigation measures are required.

Operations

Water Supply

Impacts related to water supply would be less than significant. No mitigation measures are required.

Water Supply Treatment and Conveyance Infrastructure

Impacts related to water supply treatment and conveyance infrastructure would be less than significant. No mitigation measures are required.

SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Construction

The West Adams New Community Plan describes the capacity for future development for a portion of the City and does not constitute a commitment to any project-specific construction. Therefore, no impacts related to construction would occur.

Operations

Water Supply

Impacts related to water supply were determined to be less than significant without mitigation.

Water Supply Treatment and Conveyance Infrastructure

Impacts related to water supply treatment and conveyance infrastructure were determined to be less than significant without mitigation.

WASTEWATER

REGULATORY FRAMEWORK

Federal

Federal Water Pollution Control Act (Clean Water Act, or CWA). In 1972, the CWA was amended to provide that the discharge of pollutants to waters of the United States from any point (such as discharge from an industrial facility) or non-point (surface and farmland water runoff) source is unlawful unless the discharge is in compliance with a National Pollution Discharge Elimination System (NPDES) permit.

The CWA was enacted with the primary purpose of restoring and maintaining the chemical, physical, and biological integrity of the Nation's waters. The CWA also directs states to establish water quality standards for all "waters of the United States" and to review and update such standards on a triennial basis. Section 319 mandates specific actions for the control of pollution from non-point sources. The U.S. Environmental Protection Agency has delegated responsibility for implementation of portions of the CWA, including water quality control planning and control programs, such as the NPDES Program, to the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB). Section 303(c)(2)(b) of the CWA requires states to adopt water quality standards for all surface waters of the United States based on the water body's designated beneficial use. Where multiple uses exist, water quality standards must protect the most sensitive use. Water quality standards are typically numeric, although narrative criteria based upon biomonitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards. Water quality standards applicable to the proposed project are listed in the California RWQCB's Basin Plan.

National Pollutant Discharge Elimination System (NPDES). The NPDES permit system was established in the CWA to regulate point source discharges into waters within the United States. Point sources are discrete conveyances such as pipes or manmade ditches. Individual homes connected to a municipal system are not required to obtain a permit under the NPDES, however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

Regional

Los Angeles Regional Water Quality Control Board (LARWQCB). The LARWQCB is one of the nine State RWQCBs that are under the purview of the SWRCB. The SWRCB sets statewide policy and, together with the nine State RWQCBs, implements State and federal laws and regulations that pertain to water quality. The LARWQCB implements State and federal laws and regulations within its jurisdiction and continuously maintains its Water Quality Control Plan.

Local

City of Los Angeles General Plan Framework (Framework). The Framework was adopted in 1996 and amended in August 2001. The Framework is a general, long-term, programmatic document that has goals and policies that are implemented by the various individual elements of the General Plan. The goals, policies, and objectives of the Framework that are related to the City wastewater collection infrastructure and treatment capacity are listed on **Table 4.16-9**.

TABLE 4.16-9: RELEVANT GENERAL PLAN WASTEWATER TREATMENT AND CONVEYANCE GOALS, OBJECTIVES, AND POLICIES	
Goal/Policy/Objective	**Goal/Policy/Objective Description**
Goal 9A	Adequate wastewater collection and treatment capacity for the City and in basins tributary to City-owned wastewater treatment facilities.
Objective 9.1	Monitor and forecast demand based upon actual and predicted growth.
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.
Objective 9.2	Maintain the wastewater collection and treatment system, upgrade it to mitigate current deficiencies, and improve it to keep pace with growth as measured by the City's monitoring and forecasting efforts.
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, 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.
Objective 9.3	Increase the utilization of Demand Side Management (DSM) strategies to reduce system demand and increase recycling and reclamation.
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.
Objective 9.4	Ensure continued provision of wastewater collection and treatment after an earthquake or other emergency.
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: City of Los Angeles, *The Citywide General Plan Framework, An Element of the City of Los Angeles General Plan*, re-adopted 2001.	

EXISTING SETTING

Wastewater generated within the West Adams CPA is collected and treated by the Bureau of Sanitation (BOS) wastewater conveyance and treatment infrastructure. The BOS operates and maintains the wastewater collection and treatment for the City and 29 contract cities and agencies. The City's sewage system is comprised of the Hyperion Treatment Plant Service Area (HSA), the Terminal Island Treatment Plant Service Area, and more than 6,500 miles of public sewers which convey approximately 500 mgd of wastewater.[14] The City's public sewers are managed within 26 primary sewer basins which typically serve an average population of 150,000 persons and contain about 260 miles of public sewers. The City's primary sewer basin boundaries are based solely on sewer drainage and configuration and are independent of political

[14]City of Los Angeles Department of Public Works, L.A Sewers, About Treatment Plants website, *http://www.lasewers.org/treatment_plants/about/index.htm,* accessed April 20, 2011.

boundaries. The West Adams CPA is within the HSA and the South Los Angeles Primary Sewer Basin (SLAPSB), the Baldwin Hills Primary Sewer Basin (BHPSB), and the Wilshire Primary Sewer Basin (WPSB).[15,16,17]

Wastewater Treatment

City wastewater is treated at the Hyperion Treatment Plan (HTP), Terminal Island Water Reclamation Plant (TIWRP), Donald C. Tillman Water Reclamation Plant (DTWRP), and the Los Angeles-Glendale Water Reclamation Plant (LAGWRP). Each of these treatment plants treats a maximum of approximately 450, 30, 80, and 20 mgd of wastewater, respectively, but experience average daily flows of 362, 17.5, 67, and 20 mgd, respectively.[18] With the exception of the Harbor area, the majority of the City's wastewater conveyance and treatment is served by the Hyperion Sanitary Sewer System. Wastewater in the Hyperion Sanitary Sewer system is treated at the HTP.

The HTP is located in the community of Playa Del Rey which is approximately 6.5 miles southwest of the West Adams CPA. The HTP has a treatment capacity of 450 mgd and its solids handling facilities can process approximately 468 dry tons of solids per day.[19] The HTP treats a maximum-month flow of 450 mgd of wastewater and performs primary treatment of wastewater (i.e., the removal of large objects) and secondary treatment of wastewater (i.e., degradation of biological content).[20,21]

Treated wastewater from the HTP, also known as effluent, is discharged into the Santa Monica Bay through a five-mile outfall. All effluent discharges into the Santa Monica Bay are regulated by the NPDES Permit Number CA0109991. The HTP outfall discharges primary and secondary treated effluent at a depth of 187 feet. The HTP also has a one-mile outfall which is in standby condition in case of an emergency. A small remaining portion of effluent is reused to recharge barrier walls. Treated sewer sludge, or biosolids, are not discharged into the Santa Monica Bay. Biosolids are either reused in agriculture or used by landfills for daily cover.[22]

Wastewater Conveyance Infrastructure. The City owns, operates, and maintains an extensive collection and conveyance system that collects sewage over a 470-square-mile area from over four million residential customers, as well as commercial, institutional, and industrial enterprises. The City conveys the sewage to one of the four treatment facilities.[23] The collection system pipelines range in diameter from 6 inches to 150 inches and consist of approximately 6,700 miles of primary and secondary sewers. To assess and maintain the condition of this expansive system, the City actively conducts an ongoing dry- and wet-weather flow monitoring program. There are 30 automatic "real time" flow monitors and 74 additional "near time" monitors located in the primary sewer system. The monitors use either telephone lines to send data to a central location or staff will download data in the field. Additionally, flow gauging is performed at over 600 strategic locations throughout the City's secondary sewer system on either a quarterly, semi-annual, or annual cycle to monitor flow depth.

[15]City of Los Angeles Department of Public Works, Bureau of Sanitation, *South Los Angeles Primary Sewer Basin Master Plan*, November 2008.

[16]City of Los Angeles Department of Public Works, Wastewater Engineering Services Division, *Baldwin Hills Primary Sewer Basin Master Plan*, December 2008.

[17]City of Los Angeles Department of Public Works, Wastewater Engineering Services Division, *Wilshire Primary Sewer Basin Master Plan*, March 2009.

[18]City of Los Angeles Department of Public Works, Bureau of Sanitation, About Wastewater website, *http://www.lacitysan.org/wastewater/factsfigures.htm*, accessed September 25, 2011.

[19]City of Los Angeles, *CEQA Thresholds Guide*, 2006.

[20]*Ibid.*

[21]City of Los Angeles Department of Public Works, Bureau of Sanitation, *City of Los Angeles Integrated Resources Plan*, December, 2006.

[22]*Ibid.*

[23]City of Los Angeles Department of Public Works, Bureau of Sanitation, *Wastewater Collection System Rehabilitation and Replacement Report and Plan*, June 2006.

Interceptor sewer systems consist of large sewer pipelines that control the conveyance of wastewater to treatment plants. The following major interceptor sewer systems collect wastewater from the SLAPSB, BHPSB, and the WPSB and convey wastewater to the HTP:[24]

- Central Outfall Sewer
- East Coastal Interceptor Sewer
- La Cienega Interceptor Sewer
- La Cienega San Fernando Valley Relief Sewer
- North Central Outfall Sewer-North Outfall Sewer
- North Outfall Sewer-La Cienega, San Fernando Valley Relief
- Coastal Interceptor Sewer System
- North Outfall Relief Sewer

Tributaries to interceptor sewer systems are called sewer reaches. Sewer reaches are usually named after the street to which their alignment is closest. Primary sewers have pipes with a diameter of 15 inches or more and are found in all the sewer reaches that serve the Basin. Currently, there are 11 primary sewer reaches that serve the West Adams CPA. The BOS monitors the structural condition and the hydraulic flows of the Basin's 27 primary sewer reaches through the use of closed- circuit television (CCTV) and flow gauging data. **Table 4.16-10** lists the sewer structural condition ranking schedule used by the BOS. **Table 4.16-11** lists the primary sewer reaches in the West Adams CPA, their structural condition, and whether or not they require hydraulic relief.

TABLE 4.16-10: STRUCTURAL CONDITION RANKS

Ranking	Description	Action
A	Pipe is in very good condition	No action required
B	Pipe is in good condition	No action required
C	Pipe is in fair condition	Lower priority for rehabilitation project. Conduct another CCTV inspection in five years
D	Pipe is in poor condition	Schedule for rehabilitation.
E	Pipe requires emergency repair or replacement	Issue emergency contract for repair/replacement

SOURCE: City of Los Angeles Department of Public Works, Bureau of Sanitation, Wastewater Engineering Services Division, *South Los Angeles Primary Sewer Basin Master Plan*, November 2008.

TABLE 4.16-11: PRIMARY SEWER REACHES IN WEST ADAMS CPA

Primary Sewer Reach	Overall Structural Condition	Require Hydraulic Relief?
4th Avenue	A-C	No
74th Street	C-D	Yes
Adams Boulevard	A-C	No
Florence Avenue	D	Yes
La Cienega Boulevard	A-C	No
Regent	A	No
Robertson Boulevard	A	No
Venice Boulevard I	A-B	No
Venice Boulevard II	B-C	No
Washington Boulevard I	A	No
WRS	B-D	Yes

SOURCE: City of Los Angeles Department of Public Works, Bureau of Sanitation, Wastewater Engineering Services Division, *South Los Angeles Primary Sewer Basin Master Plan,* November 2008; City of Los Angeles Department of Public Works, Wastewater Engineering Services Division, *Baldwin Hills Primary Sewer Basin Master Plan,* December 2008; and City of Los Angeles Department of Public Works, Wastewater Engineering Services Division, *Wilshire Primary Sewer Basin Master Plan,* March 2009.

[24] *Ibid.*

To address the structural and hydraulic conditions of some of the reaches listed in **Table 4.16-11** above, the BOS is currently undertaking the following projects:

- The Normandie Sewer Replacement 62nd Street to 68th Street Project. This project, currently in a pre-design phase, will reduce the flow in the Florence Avenue sewer.
- 4th Avenue/Slauson Avenue Sewer Rehabilitation Project. This project, currently in its design phase, will improve the flow in the 4th and Slauson Avenue sewers.
- 60th Street Interceptor Sewer, 8th Avenue to Van Ness. This project, currently in a pre-design phase, will relieve the flow of the structurally deteriorating 74th Street sewer.
- Normandie Sewer Replacement/Rehabilitation. This project, currently in pre-design phase, will repair the structural and hydraulic deterioration of the Florence Avenue Sewer.

New and rehabilitated sewers and pump stations are planned, designed, and constructed to meet the highest performance standards in the industry in accordance with the City's Sewer Design Manual. The Sewer Design Manual is a comprehensive set of criteria for planning and designing of new sewers, pump stations, force mains, and appurtenances, and for the rehabilitation of existing sewers. In conjunction with the Sewer Design Manual, the City also maintains Standard Plans, which are used to provide consistency and quality in design. All system components are designed to meet permit requirements of the various federal, State, and local agencies thereby ensuring that projects benefit from the input of all affected and interested parties, including the communities.

The Sewer Design Manual and Standard Plans are updated, maintained, and administered by BOS Wastewater Engineering Services Division. For all projects, BOS is responsible for determining the sewer capacity availability for new sewer connections for residential, commercial, and industrial developments. This function is part of an overall sewer connection permitting process that involves a combined effort by BOS and Bureau of Engineering (BOE) personnel. In issuing a sewer connection permit, the BOE Development Services Division makes the determination if further investigation is needed to evaluate the capacity of an existing sewer line to handle the additional flow from the proposed development or project and take appropriate preemptive action to attenuate potential emergency sewer overflow incidences in the future.

In addition to preemptive sewer monitoring and permitting activities, the BOS Wastewater Collection Systems Division also maintains an up-to-date Sanitary Sewer Overflow Response and Reporting Procedures. The procedures outline the necessary actions to provide immediate response to sewage overflows. It is City policy that "[e]very reported sewage spill affecting public or private property within the City of Los Angeles shall be acted upon by the Division." Crew leaders are immediately notified upon receipt of a reported potential sewer overflow and are instructed to respond immediately.[25]

The effect of stringent monitoring practices and sewer design standards are apparent in that the City has not experienced any wet-weather overflows since major relief sewers were completed in 2006. However, some dry-weather overflows still occur occasionally due to tree roots, grease blockages, landslides, and vandalism. Despite these irregular overflow occurrences, the system currently has sufficient capacity to handle peak dry-weather flows.[26]

[25]City of Los Angeles Department of Public Works, *Sewer System Management Plan: Terminal Island Water Reclamation Plant Sanitary Sewer System*, 2011.

[26]City of Los Angeles Department of Public Works, *Sewer System Management Plan: Hyperion Sanitary Sewer System*, 2011.

Existing Wastewater Generation

The estimated wastewater generation of existing uses within the West Adams CPA is shown in **Table 4.16-12**. The total wastewater generation within the West Adams CPA is approximately 20.3 mgd. Single-family, multi-family, and commercial land uses within the West Adams CPA generate approximately 8.2, 10.4, and 1.0 mgd of wastewater, respectively. Industrial, public facilities, and open space land uses within the West Adams CPA generate approximately 0.8, 0.02, and 0.01 mgd of wastewater, respectively. Wastewater generated by the West Adams CPA represents approximately 4.5 percent of the current maximum wastewater treatment capacity of the HTP.

TABLE 4.16-12: ESTIMATED EXISTING WASTEWATER GENERATION WITHIN THE WEST ADAMS CPA

Use	Quantity	Units	Wastewater Generation Factor (gpd/unit) /a/	Wastewater Generation (gpd)
Single-Family Residential	24,829	dwelling units	330	8,193,570
Multi-Family Residential	41,586	dwelling units	250	10,396,500
Commercial	34,014	employee	30	1,020,420
Industrial	7,573,013	square feet	0.1	757,301
Open Space	179	employee	30	5,368
Public Facilities	490	employee	30	14,713
			Total Existing Wastewater Generation	**20,387,872**

/a/ Wastewater generation factors were obtained from the City of Los Angeles Bureau of Engineering, *Sewer Design Manual, Part F 200: Projection of Flows and Hydraulics of Sewers, Table F-229.*
SOURCE: City of Los Angeles, Demographics Unit, 2012; TAHA, 2012.

THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant impact related to wastewater if it would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- 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; and/or
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project=s projected demand in addition to the provider=s existing commitments.

City of Los Angeles CEQA Thresholds Guidelines

In addition, based on the criteria set forth in the City of Los Angeles CEQA Thresholds Guide (2006), the determination of significance shall be made on a case-by-case basis, considering the following factors:

For impacts related to wastewater generation and/or conveyance infrastructure:

- Would the project produce wastewater flows greater than existing flows in an area shaded on Exhibits M.2-2 through M.2-11;
- Would the project produce a new or increased average daily wastewater flow of 4,000 gallons per day (gdp) or more, regardless of location;
- Does the proposed project include a change in land use limitations (such as a zone change, variance or General Plan amendment), which could allow greater average daily flows than could be produced following the current land use limitations;

- The project would cause a measurable increase in wastewater flows at a point where, and a time when, a sewer's capacity is already constrained or that would cause a sewer's capacity to become constrained; and/or
- The project's additional wastewater flows would substantially or incrementally exceed the future scheduled capacity of any one treatment plant by generating flows greater than those anticipated in the Wastewater Facilities Plan or General Plan and its elements.

IMPACTS

The proposed project is the adoption of the West Adams New Community Plan and its implementing ordinances. These ordinances, which include standards and guidelines for projects within the West Adams CPA, include a Community Plan Implementation Overlay District (CPIO) containing several subdistricts throughout the plan area, as well as amendments to the existing Crenshaw Corridor Specific Plan. The proposed project further involves General Plan Amendments and zone changes to create consistency with the City's General Plan Framework Element, as well as create consistency between both planned and existing uses of parcels and their relationship to surrounding areas. Through implementation of the CPIO, the proposed project further restricts detrimental uses, incentivizes development in targeted areas, and provides development standards to ensure that new construction is consistent with neighborhood character, as well as corrects minor errors within the existing West Adams Community Plan. While there are wastewater impacts to consider within the West Adams CPA, they are subject to the federal and local policies and guidelines mentioned above; therefore, the proposed West Adams New Community Plan and its implementing ordinances do not contain any specific guidelines that would affect wastewater.

For discussion of operations impacts associated with the proposed project, full implementation of the project (year 2030) will be analyzed.

Construction

The West Adams New Community Plan describes the capacity for future development for a portion of the City and does not constitute a commitment to any project-specific construction. Therefore, no further discussion of construction impacts is necessary.

Operations

Wastewater Treatment

Currently, the four wastewater treatment plants (HTP, TIWRP, DTWRP, and LAGWRP) have a collective maximum capacity of 580 mgd. The average daily wastewater flows that these plants experience collectively is 466.5 mgd, which leaves an additional capacity of approximately 20 percent, or 113.5 mgd.[27]

The West Adams CPA currently generates approximately 20.3 mgd of wastewater. The wastewater generated by the West Adams CPA is 4.5 percent of the current maximum treatment capacity of HTP, the largest treatment plant servicing the City. When compared to the current maximum capacity of all four treatment plants, wastewater generation within the West Adams CPA falls to 3.5 percent. Full implementation of the proposed project would cause wastewater generation to increase by approximately 5.5 mgd over existing wastewater generation within West Adams CPA. This amounts to an increase of less than one percent of the current maximum treatment capacity of all four treatment plants (580 mgd).

[27]City of Los Angeles Department of Public Works, Bureau of Sanitation, *City of Los Angeles Integrated Resources Plan,* December 2006, Table 2-5, page 2-9.

It is important to consider the existing and anticipated wastewater generation within the West Adams CPA in relation to current average daily flows experienced by all four treatment plants, as well as in proportion to remaining capacity of the system. Accordingly, as noted above, the four treatment plants collectively experience an average daily flow of 466.5 mgd. As a proportion of total average daily flow experienced by the four treatment plants, the existing wastewater generation within the West Adams CPA accounts for 4.3 percent. The proposed project anticipates population, housing and commercial infrastructure, and employment growth to produce an additional 5.5 mgd of wastewater within the West Adams CPA (**Table 4.16-13**). This estimated increase in wastewater generation from full implementation of the proposed project is 1.2 percent of the total existing average wastewater flows of the City of Los Angeles, and 4.9 percent of remaining wastewater treatment capacity for the four sites. By considering the anticipated wastewater generation within the West Adams CPA as a proportion of total capacity, total average daily flows, and remaining capacity of the four treatment plants, the increased wastewater generation due to the proposed project is minimal.

TABLE 4.16-13: ESTIMATED WASTEWATER GENERATION OF THE PROPOSED PROJECT

Use	Quantity	Units	Wastewater Generation Rate (gpd/unit) /a/	Wastewater Generation (gpd)
Single-Family Residential /b/	30,903	dwelling units	330	10,197,990
Multi-Family Residential	55,215	dwelling units	250	13,803,750
Commercial	44,326	employee	30	1,329,780
Industrial	4,335,062	square feet	0.1	433,506
Open Space	216	employee	30	6,480
Public Facilities	2,787	employee	30	83,610
Estimated Total Wastewater Usage of Proposed Project				**25,855,116**
Less Existing Wastewater Usage				**20,387,872**
Net Wastewater Generation of Proposed Project				**5,467,244**

/a/ Wastewater generation factors were obtained from the City of Los Angeles Bureau of Engineering, *Sewer Design Manual, Part F 200: Projection of Flows and Hydraulics of Sewers, Table F-229*
/b/ The total dwelling units for the Single-Family Residential category were determined by dwelling units in the R-1 and R-1.5 zones
SOURCE: City of Los Angeles, Demographics Unit; TAHA, 2012.

Furthermore, the proposed project is not located in areas already experiencing constrained sewer capacity. Areas known to have constrained sewer capacity are depicted in Exhibits M.2-2 through M.2-11 in the City of Los Angeles CEQA Thresholds Guide (2006). Sewer capacity planning is prioritized based on the current and projected hydraulic conditions, which are evaluated by a capacity ratio (d/D) that describes the relationship between sewer flow depth (d) and the inside diameter of a sewer pipe (D). Exhibits M.2-2 through M.2-11 illustrate areas relying on a portion of the sewer system that is already experiencing wastewater flow levels at or above 0.75 d/D capacity levels.[28,29] The proposed project is not located within any of the areas depicted in the City of Los Angeles CEQA Threshold Guides Exhibits mentioned above. Therefore, the proposed project would result in less-than-significant impacts related to wastewater treatment.

Wastewater Conveyance Infrastructure

The City's existing infrastructure does not have an infinite lifespan and needs continuing renewal in order to provide reliable service. This means rehabilitating old sewer mains, maintenance holes, and replacing aging equipment and structures at treatment and pumping plants. To do so, the City maintains the Wastewater Capital Improvement Program (WCIP) that contains the capital projects and estimated costs for the renewal of the City's infrastructure for the next ten years. The WCIP was originally adopted in 2006 and most recently updated in 2008. The WCIP was developed and evaluated according to projections and preferences contained in the *City of Los Angeles Integrated Resources Plan (IRP)*, which anticipates that average daily

[28]These exhibits were based off of 2005 wastewater flow levels and there has not yet been an updated CEQA Thresholds Guide with more recent data.

[29]City of Los Angeles, Bureau of Engineering, Environmental Management Group, Jim Doty, Acting Manager, Phone conversation November 16,2011.

wastewater flows in year 2020 will increase to 531.4 mgd. To meet anticipated increased wastewater flows, the IRP evaluates five alternatives and identifies a preferred alternative that addresses the need for increased treatment capacity from the system but does not identify the need to build new treatment plants to meet the anticipated increase in wastewater generation. Instead, the chosen alternative favors adding capacity to existing facilities.[30] The existing maximum capacity of all four treatment plants can accommodate the anticipated wastewater flows identified in the IRP. However, the 2008 WCIP recognizes necessary projects to maintain, bolster, and expand the existing system allocating over $4.5 billion to do so during FY 2008/09 to FY 2017/18.

The BOS Wastewater Engineering Services Division is responsible for determining sewer capacity availability for new sewer connections for residential, commercial, and industrial developments. Thus, all development activities that require sewer connection permits are evaluated under the purview of existing capacity of sewer lines in the development site's vicinity at the time of development. By doing so, each new development must adhere to the most current Sewer Design Manual specifications as well as appropriate Standard Plan requirements. The Sewer Design Manual and Standard Plan are continuously updated to incorporate the most recent industry practices and materials ensuring appropriate measures are taken to accommodate any potential project. Sewer capacity planning is prioritized based on two d/D (a ratio of sewer flow depth to sewer diameter) levels: Trigger d/D and Relief d/D. While the Relief d/D is currently 0.75 across the City for all existing sewers, the Trigger d/D varies on a project by project basis because each project's tributary area has its own unique characteristics such as population growth projection, commercial and industrial discharge forecast, and other contributing factors that determine how quickly flows are projected to increase over time. However, the Sewer Design Manual requires all new sewers to meet a d/D of 0.5 for the projected design year.[31]

The City also has immediate response and reporting procedures in place to attend to any unexpected sewer overflows. The procedures are maintained in the Wastewater Collection Systems Division's up-to-date Sanitary Sewer Overflow Response and Reporting Procedures. Moreover, the City proactively monitors the sewer system to preemptively identify and resolve deficiencies before they can become problematic. System deficiencies in need of rehabilitation are then included in the WCIP, which are attended to according to their associated priority ranking.

The cumulative result of requiring new developments to meet rigorous design and performance standards in conjunction with a ready overflow response plan and proactive monitoring practices has resulted in the absence of wet-weather overflows since 2006. Furthermore, **Table 4.16-10**, above, illustrates that none of the primary sewer reaches in the West Adams CPA have a structural condition ranking lower than a D. Of the 11 sewer reaches listed in **Table 4.16-10**, above, only three have a D level ranking, which requires them to be scheduled for rehabilitation. Consequently, those D level reaches are being addressed by corresponding capital improvement projects listed above. Therefore, the proposed project would result in less-than-significant impacts related to wastewater conveyance infrastructure.

MITIGATION MEASURES

Construction

The West Adams New Community Plan describes the capacity for future development for a portion of the City and does not constitute a commitment to any project-specific construction. Therefore, no mitigation measures are required.

[30]City of Los Angeles Department of Public Works, Bureau of Sanitation, *City of Los Angeles Integrated Resources Plan*, December 2006, Table 2-5, page 2-9.

[31]City of Los Angeles Department of Public Works, *Sewer System Management Plan: Hyperion Sanitary Sewer System*, 2011.

Operations

Wastewater Treatment

Impacts related to wastewater treatment would be less than significant. No mitigation measures are required.

Wastewater Conveyance Infrastructure

Impacts related to wastewater conveyance infrastructure would be less than significant. No mitigation measures are required.

SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Construction

The West Adams New Community Plan describes the capacity for future development for a portion of the City and does not constitute a commitment to any project-specific construction. Therefore, no impacts related to construction would occur.

Operations

Wastewater Treatment

Impacts related to wastewater treatment were determined to be less than significant without mitigation.

Wastewater Conveyance Infrastructure

Impacts related to wastewater conveyance infrastructure were determined to be less than significant without mitigation.

SOLID WASTE

REGULATORY FRAMEWORK

Federal

There are no federal solid waste regulations applicable to the proposed project.

State

California Integrated Waste Management Act of 1989 (AB 939). Solid waste regulation in California is governed by the California Integrated Waste Management Act of 1989, which is commonly known as AB 939. The Act, codified into the California Public Resources Code, emphasizes a reduction of waste disposed in California landfills. To achieve a reduction of waste in California landfills, AB 939 requires all city and county plans to include a waste diversion schedule with the goals to divert 25 percent of solid waste from landfills by 1995 and divert 50 percent of solid waste from landfills by the year 2000. To achieve these goals, AB 939 emphasizes that cities and counties reduce the production, recycle, and reuse solid waste.

Local

City of Los Angeles General Plan Framework (Framework). The Framework was adopted in 1996 and recently amended in August 2001. The Framework is a general, long-term, programmatic document that has goals and policies that are implemented by the various individual elements of the General Plan. The goals of the Framework that are related to the solid waste disposal and landfills are listed in **Table 4.16-14**.

TABLE 4.16-14: RELEVANT GENERAL PLAN SOLID WASTE DISPOSAL AND LANDFILLS GOALS, OBJECTIVES, AND POLICIES

Goal/Policy/Objective	Goal/Policy/Objective Description
Goal 9D	An integrated solid waste management system that maximizes source reduction and materials recovery and minimizes the amount of waste requiring disposal.
Goal 9E	Adequate Recycling Facility Development - expanded siting of facilities that enhance the City's reduction, recycling and composting efforts using methods and strategies that are economically, socially, and politically acceptable.
Goal 9F	Adequate collection, transfer and disposal of mixed solid waste - the City shall seek to ensure that all mixed solid waste that cannot be reduced, recycled or composted is collected, transferred and disposed of in a manner that minimizes adverse environmental impacts.
Goal 9G	An environmentally sound solid waste management system that protects public health, safety, and natural resources and minimizes adverse environmental impacts.
Goal 9H	A cost-effective solid waste management system that emphasizes source reduction, recycling, reuse, and market development and is adequately financed to meet operational and maintenance needs.

SOURCE: City of Los Angeles, *The Citywide General Plan Framework, An Element of the City of Los Angeles General Plan*, re-adopted 2001.

City of Los Angeles Solid Waste Management Policy Plan (CiSWMPP).[32] The 1994 CiSWMPP is the long-range solid waste management policy plan for the City, while the Source Reduction and Recycling Element (SRRE) is the strategic action policy plan for diverting solid waste from landfills. The SRRE predates the CiSWMPP and, therefore, underpins the goals, objectives, and policies in the CiSWMPP. The CiSWMPP embodies five waste management goals along with specific objectives and policies to achieve these goals. These goals, objectives, and policies are described in the CiSWMPP. The CiSWMPP provide

[32]City of Los Angeles Department of Public Works, Bureau of Sanitation, *City of Los Angeles Solid Waste Planning Background Studies Summary Report,* 2006.

both direction about future waste management practices in the City and guidance in developing and implementing programs involving source reduction, recycling, composting, collection, transfer, processing, and disposal. The five primary objectives of the CiSWMPP are:

- *Maximum Waste Diversion*: It is the goal of the City to create an integrated solid waste management system that maximizes source reduction and materials recovery and minimizes the amount of waste requiring disposal. To do so, the City has set out to achieve solid waste diversion rates of 25 percent by year 1995, 50 percent by year 2000, and 70 percent by year 2020.
- *Adequate Recycling Facility Development*: It is the goal of the City to expand the siting of facilities that enhance waste reduction, recycling, and composting throughout the City beyond current limits of the Zoning Code in ways that are economically, socially, and politically acceptable.
- *Adequate Collection, Transfer, and Disposal of Mixed Solid Waste*: It is the goal of the City to ensure that mixed solid waste that cannot be reduced, recycled, or composted will be collected, transferred, and disposed of in a manner that minimizes adverse environmental impacts.
- *An Environmentally Sound System*: It is the goal of the City to develop an environmentally sound solid waste management system that protects public health and safety, protects natural resources, and uses the best available technology to accommodate the needs of the City.
- *A Cost-Effective Solid Waste Management System*: It is the goal of the City to operate a cost-effective, integrated waste management system that emphasizes source reduction, recycling, reuse, and market development and is adequately financed to meet operation and maintenance needs.

City of Los Angeles Curbside Recycling Program.[33] The City of Los Angeles currently operates the largest residential curbside recycling program in the United States, collecting a variety of recyclables from over 750,000 households every week. Using fully automated collection vehicles in conjunction with 90 gallon blue recycling containers and 90 gallon green Yard Waste containers, the City currently collects an average of 979 tons per day of recyclable materials and 1,783 tons per day of green waste from LA City residents. Participating residents include 530,000 single family homes and 220,000 small multi-family units (four units & under).

EXISTING SETTING

The BOS and private waste management companies are responsible for the collection of solid waste, disposal, and recycling for the City. Solid waste generated by single-family and some multi-family residences is collected by the BOS.[34] Remaining multi-family residences and all industrial and commercial buildings contract with private waste haulers to collect, dispose, and recycle solid waste.

Refuse collected by the BOS is sent for disposal to the Calabasas, Chiquita, Lancaster, Puente Hills and Sunshine Canyon Landfills. **Table 4.16-15** lists the location, permitted capacity, remaining capacity, permitted daily intake capacity, the average daily volume of solid waste disposed of at the landfills serving the City of Los Angeles, and the approximate tons per day of solid waste that the City of Los Angeles disposed of at each landfill. As shown therein, the City of Los Angeles primarily uses the Sunshine Canyon and Chiquita Canyon landfills. Refuse collected by private haulers is disposed of at the regional landfills and waste-to-energy facilities listed in **Table 4.16-15**. The Class III landfills accepting waste from the City have a total daily intake capacity of 41,300 tons per day and a remaining capacity of 147 million tons.

[33]City of Los Angeles Department of Public Works, Bureau of Sanitation, Curbside Recycling Program website, *http://lacitysan.org/solid_resources/recycling/curbside/Curbside_Recycling.htm*, accessed September 13, 2011.

[34]City of Los Angeles General Plan, *The Citywide General Plan Framework: An Element of The City Of Los Angeles General Plan*, August 2001.

TABLE 4.16-15: SOLID WASTE FACILITIES SERVING THE CITY OF LOS ANGELES

Facility Name	Location	Closure Date	Permitted Capacity (cubic yards)	Remaining Capacity (tons) /a/	Permitted Daily Intake Capacity (tons/day)	2008 Average Daily Disposal (tons/day)	Amount of Solid Waste from the City of Los Angeles (tons/day)
CLASS III LANDFILLS							
Antelope Valley	Palmdale	1/1/1941	6,480,000	7,746,000	1,400	979	N/A
Calabasas	Agoura	9/30/2025	69,300,000	7,795,000	3,500	1,184	649
Chiquita Canyon	Castaic	11/24/2019	63,900,000	8,011,000	6,000	4,822	1,864
Lancaster	Lancaster	8/2/2012	26,665,000	13,324,000	1,700	1,141	478
Puente Hills	Whittier	10/31/2013	74,000,000	21,620,000	13,200	10,096	459
Sunshine Canyon	LA City & County	12/31/1937	140,900,000	82,980,000	12,100	5,949	3,675
Scholl Canyon	Whittier	12/31/2024	58,900,000	5,660,000	3,400	1,089	N/A
Total Class III Landfill			**440,145,000**	**147,136,000**	**41,300**	**25,260**	
INERT WASTE FACILITIES AND OTHER REFUSE FACILITIES							
Azusa Land Reclamation	Azusa	1/1/2025	66,670,000	45,715,000	6,500	565	N/A
Commerce Refuse-to-Energy	Commerce	N/A	1,000 tons/day	466,000,000	1,000	328	51
Peck Road Gravel Pit	Monrovia	N/A	3,400,000	11,250,000	1,210	0	N/A
Southeast Resource Recovery Facility	Long Beach	N/A	2,240 tons/day	1.6 billon	2.24	1,530	110
Total Inert Waste and Other Refuse Facilities			**70,070,000**	**2.1 billion**	**8,712**	**2,423**	

/a/ The remaining capacity is as of December 31, 2008.
SOURCE: County of Los Angeles Department of Public Works, *Countywide Integrated Waste Management Plan – 2008 Annual Report*, October 2009.

In 2008, approximately 3,186,116 tons of solid waste originating from the City of Los Angeles was disposed of at the landfills and other solid waste facilities listed in **Table 4.16-15** above.[35] In the Fiscal Year 2004-2005 (the most recent year available), the South Los Angeles Wasteshed, which includes the West Adams CPA, produced approximately 1,186 tons of solid waste per day, of which approximately 861, 210, and 115 tons were refuse, green waste, and recyclables, respectively.[36]

The estimated solid waste generation of existing uses within the West Adams CPA is shown in **Table 4.16-16**. The total solid waste generation within the West Adams CPA is approximately 407 tons per day.[37] Single-family, multi-family, and commercial land uses within the West Adams CPA generate 150, 116, and 107 tons per day of solid waste, respectively. Industrial, open space, and public facilities land uses within the West Adams CPA generate 31.8, 0.6, and 1.5 tons per day of solid waste, respectively. Solid waste from existing uses within the West Adams CPA represents less than one percent of the daily intake capacity of the landfills serving the West Adams CPA.

TABLE 4.16-16: ESTIMATED EXISTING SOLID WASTE GENERATION WITHIN WEST ADAM CPA

Use	Quantity	Units	Solid Waste Generation Rate (pounds/unit) /a/	Solid Waste Generation (pounds/day)	Solid Waste Generation (tons/day)
Single-Family Residential	24,829	dwelling units	12.1	300,431	150
Multi-Family Residential	41,586	dwelling units	5.6	232,882	116
Commercial	34,014	employee	6.3	214,288	107
Industrial	10,097	employee	6.3	63,611	32
Open Space	179	employee	6.3	1,127	0.6
Public Facilities	490	employee	6.3	3,090	1.5
Estimated Total Existing Solid Waste Generation				**815,429**	**406.9**

/a/ Solid waste generation rates were derived from the City of Los Angeles Bureau of Sanitation, *City of Los Angeles Solid Waste Planning Background Studies Summary Report (2006), Section 3.1.2: Waste Disposal by Sector*
SOURCE: City of Los Angeles, Demographics Unit; TAHA, 2012.

THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant impact related to solid waste if it would:

- Not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

[35]County of Los Angeles Department of Public Works, Solid Waste Information Management System, Detailed Solid Waste Disposal Activity Report by Jurisdiction of Origin website, *http://dpw.lacounty.gov/epd/swims/disposal/reports.aspx*, accessed April 18, 2011.

[36]City of Los Angeles Department of Public Works, Bureau of Sanitation, *Zero Waste Plan Fact Sheet*, 2009, available at *http://www.zerowaste.lacity.org/files/info/fact_sheet/2009Feb2SWIRPFactSheet.pdf*, accessed April 20, 2011.

[37]The conversion rate used was 2000 pounds = 1 ton. By contrast, a metric ton has a conversion rate of 2,204.62 pounds per ton.

City of Los Angeles CEQA Thresholds Guidelines

In addition, based on the criteria set forth in the City of Los Angeles CEQA Thresholds Guide (2006), the determination of significance shall be made on a case-by-case basis, considering the following factors.

For impacts related to solid waste generation and/or conveyance infrastructure:

- Amount of projected waste generation, diversion, and disposal during demolition, construction, and operation of the project, considering proposed design and operational features that could reduce typical waste generation rates;
- Need for an additional solid waste collection route, or recycling or disposal facility to adequately handle project-generated waste; and/or
- Whether the project conflicts with solid waste policies and objectives in the Source Reduction and Recycling Element (SRRE) or its updates, City of Los Angeles Solid Waste Management Policy Plan (CiSWMPP), Framework Element, or the Curbside Recycling Program, including consideration of the land use-specific waste diversion goals contained in Volume 4 of the SRRE.

IMPACTS

The proposed project is the adoption of the West Adams New Community Plan and its implementing ordinances. These ordinances, which include standards and guidelines for projects within the West Adams CPA, include a Community Plan Implementation Overlay District (CPIO) containing several subdistricts throughout the plan area, as well as amendments to the existing Crenshaw Corridor Specific Plan. The proposed project further involves General Plan Amendments and zone changes to create consistency with the City's General Plan Framework Element, as well as create consistency between both planned and existing uses of parcels and their relationship to surrounding areas. Through implementation of the CPIO, the proposed project further restricts detrimental uses, incentivizes development in targeted areas, and provides development standards to ensure that new construction is consistent with neighborhood character, as well as corrects minor errors within the existing West Adams Community Plan. While there are solid waste impacts to consider within the West Adams CPA, they are subject to the State and local policies and guidelines mentioned above; therefore, the proposed West Adams New Community Plan and its implementing ordinances do not contain any specific guidelines that would affect solid waste.

For discussion of operations impacts associated with the proposed project, full implementation of the project (year 2030) will be analyzed.

Construction

The West Adams New Community Plan describes the capacity for future development for a portion of the City. While the proposed project includes a series of implementing ordinances, it is not an implementation plan in and of itself, and its adoption does not constitute a commitment to any project-specific construction. However, construction related to future capacity within the West Adams CPA would have the following potential effects.

Solid Waste

The proposed project is expected to comply with Section 66.32 of the LAMC during the demolition phase. Compliance with Section 66.32 of the LAMC would ensure that at least 50 percent of the demolition solid waste generated by the proposed project would be diverted from the landfills serving the City of Los Angeles. According to Los Angeles County Department of Public Works' 2008 Annual Report, landfills serving the City of Los Angeles have closure dates ranging from August 2012 to January 2041. Two landfills with the nearest closure dates are the Lancaster and Puente Hills Landfills, which are expected to

close in August 2012 and January 2013, respectively. These two landfills receive approximately 460 and 480 tons per day, respectively, from the City of Los Angeles. The remaining landfills have the capacity to accommodate these closures and still support the construction of developments as a result of the proposed project. Therefore, the proposed project would result in less-than-significant impacts related to solid waste.

Operations

Solid Waste

As discussed in Section 4.10 Land Use, the majority of the land use changes proposed by the West Adams New Community Plan and implementing ordinances consist of General Plan Amendments to create consistency with Framework Land Use designations. However, some proposed changes in Floor Area Ratios (FAR) and heights would increase the intensity of development, thereby increasing population, housing, and employment; all of which are factors that can increase solid waste generation within the West Adams CPA. Implementation of the proposed project would incrementally increase population, housing, and employment within the West Adams CPA by 5.9 percent, 5.9 percent, and 7.9 percent, respectively, until the buildout year of 2030.

As shown in **Table 4.16-17** the increases in population, housing, and employment would cause solid waste generation in the West Adams CPA to increase by 202,289 pounds per day, or roughly 101 tons. This amounts to nearly a 25 percent increase over existing solid waste generation in the West Adams CPA. The calculation of the project's estimated solid waste generation is a worst-case-scenario and does not take into consideration the City's successful efforts to divert disposal of solid waste by 50 percent, in compliance with AB 939. Additionally, the calculation does not take into consideration the reduction in landfill disposal due to the City's current and future efforts to achieve a "zero waste" level (a 90 percent diversion rate) by the year 2025.

TABLE 4.16-17: ESTIMATED SOLID WASTE GENERATION OF THE PROPOSED PROJECT

Use	Quantity	Units	Solid Waste Generation Rate (pounds/unit/day)/a/	Solid Waste Generation (pounds/day)
Single-Family Residential /b/	30,903	dwelling units	12.1	373,926
Multi-Family Residential	55,215	dwelling units	5.6	309,204
Commercial	44,326	employee	6.3	279,254
Industrial	5,780	employee	6.3	36,415
Open Space	216	employee	6.3	1,361
Public Facilities	2,787	employee	6.3	17,558
Estimated Total Solid Waste Generation of Proposed Project				**1,017,718**
Estimated Total Existing Solid Waste Generation				**815,429**
Net Solid Waste Generation of Proposed Project				**202,289**

/a/ Solid waste generation rates were derived from the City of Los Angeles Bureau of Sanitation, *City of Los Angeles Solid Waste Planning Background Studies Summary Report (2006), Section 3.1.2: Waste Disposal by Sector.*
/b/ The total dwelling units for the Single-Family Residential category were determined by dwelling units in the R-1 and R-1.5 zones.
SOURCE: City of Los Angeles, Demographics Unit; TAHA, 2012.

As shown in **Table 4.16-15** above, the 2008 total permitted daily intake capacity for all Class III solid waste facilities serving the City of Los Angeles was 8,712 tons and the 2008 disposal rate for all the jurisdictions using those facilities was 2,423 tons. Therefore, the increase in solid waste generation by the proposed project accounts for an increase in the daily disposal rate of 0.4 percent and would require 0.2 percent of total permitted daily intake capacity of all solid waste facilities serving the City of Los Angeles. Lastly, the increase in solid waste generation in year 2030 due to the proposed project would account for less than 0.01 percent of total remaining capacity of solid waste facilities serving the West Adams CPA.

The increased solid waste generation in year 2030 due to the proposed project may require additional collection routes to be implemented for solid waste, recycling, or other disposal collection. While the project would incrementally build towards year 2030 generation rates and result in an annual increase of just over 10,000 pounds per day or 1.2 percent per year, when prorated over the effective lifespan of the proposed project (i.e., 20 years), the location of such increases are unknown and could require increases to the existing frequency or the number routes used for the current solid waste collection services within the West Adams CPA.

However, the proposed project does not conflict with the goals, objectives, and policies in the SRRE, CiSWMPP, Curbside Recycling Program, or the Framework Element. These policy documents are currently governing the solid waste management practices within the West Adams CPA. As discussed above, the proposed project would increase the solid waste generated by 10,000 pounds per day or 1.2 percent per year over existing solid waste generation within the West Adams CPA. This level of increase would not disrupt successfully meeting the goals, objectives, and policies contained in any of the solid waste management policy documents of the City. Therefore, the proposed project would result in less-than-significant impacts related to solid waste.

MITIGATION MEASURES

Construction

Impacts related to solid waste would be less than significant. No mitigation measures are required.

Operations

Impacts related to solid waste would be less than significant. No mitigation measures are required.

SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Construction

Impacts related to solid waste were determined to be less than significant without mitigation.

Operations

Impacts related to solid waste were determined to be less than significant without mitigation.

ENERGY

REGULATORY FRAMEWORK

Federal

Public Utility Regulatory Policies Act of 1978 (PURPA) (Public Law 95-617). PURPA was passed in response to the unstable energy climate of the late 1970s. PURPA sought to promote conservation of electric energy. Additionally, PURPA created a new class of nonutility generators, small power producers, from which, along with qualified cogenerators, utilities are required to buy power.

PURPA was in part intended to augment electric utility generation with more efficiently produced electricity and to provide equitable rates to electric consumers. Utility companies are required to buy all electricity from qualifying facilities (Qfs) at avoided cost (i.e., the incremental savings associated with not having to produce additional units of electricity). PURPA expanded participation of nonutility generators in the electricity market, and demonstrated that electricity from nonutility generators could successfully be integrated with a utility's own supply. In addition, PURPA requires utilities to buy whatever power is produced by Qfs (usually cogeneration or renewable energy). Utilities want these provisions repealed; critics argue that it will decrease competition and impede development of the renewable energy industry. The Fuel Use Act (FUA) of 1978 (repealed in 1987) also helped Qfs become established. Under FUA, utilities were not allowed to use natural gas to fuel new generating technologies, but Qfs, by definition not utilities, were able to take advantage of abundant natural gas and abundant new technologies (such as combined-cycle). The technologies lowered the financial threshold for entrance into the electricity generation business as well as shortened the lead time for constructing new plants.

Energy Policy Act of 2005. On August 8, 2005, President George W. Bush signed the National Energy Policy Act of 2005 into law. This comprehensive energy legislation contains several electricity related provisions that aim to:

- Help ensure that consumers receive electricity over a dependable, modern infrastructure;
- Remove outdated obstacles to investment in electricity transmission lines;
- Make electric reliability standards mandatory instead of optional; and
- Give federal officials the authority to site new power lines in DOE designated national corridors in certain circumstances.

Clean Air Act (CAA). Section 211(o) of the CAA, as amended by the Energy Policy Act of 2005, requires the Administrator of the USEPA to annually determine a renewable fuel standard (RFS) which is applicable to refineries, importers, and certain blenders of gasoline, and to publish the standard in the Federal Register by November 30 each year. On the basis of this standard, each obligated party determines the volume of renewable fuel that it must ensure is consumed as motor vehicle fuel. This standard is calculated as a percentage, by dividing the amount of renewable fuel that the Act requires to be blended into gasoline for a given year by the amount of gasoline expected to be used during that year, including certain adjustments specified by the CAA. The notice published on November 21, 2008, included an RFS of 10.21 percent for 2009.

State

The California Energy Commission and California Public Utilities Commission (CPUC) have jurisdiction over Investor Owned Utilities (IOUs) in California. The California Energy Commission also collects information for the LADWP.

California Building Energy Efficiency Standards: Title 24. California established statewide building energy standards following legislative action. The legislation required the standards to:

- Be cost effective;
- Be based on the building life cycle; and
- Include both prescriptive and performance-based approaches.

California's building efficiency standards (along with those of energy efficient appliances) have saved more than $56 billion in electricity and natural gas costs since 1978. It is estimated the standards will save an additional $23 billion by 2013.[38] As technology and design have evolved, the standards have been periodically updated, generally, every three years.

Title 24 of the California Code of Regulations comprises the State Building Standards Code. Part 6 of Title 24 is the California Energy Code that includes the building energy efficiency standards. The standards include provisions applicable to all buildings, residential and non-residential, which describe requirements for documentation and certify that the building meets the standards. These provisions include mandatory requirements for efficiency and design of the following types of systems, equipment, and appliances:

- Air conditioning systems
- Heat pumps
- Water chillers
- Gas and oil-fired boilers
- Cooling equipment
- Water heaters and equipment
- Pool and spa heaters and equipment
- Gas fired equipment including furnaces and stoves/ovens
- Windows and exterior doors
- Joints and other building structures openings
- Insulation and cool roofs
- Lighting control devices

The standards include additional mandatory requirements for space conditioning (cooling and heating) water heating, and indoor and outdoor lighting systems and equipment in non-residential, high-rise residential and hotel or motel buildings. Mandatory requirements for low-rise residential buildings cover indoor and outdoor lighting, fireplaces, space cooling and heating equipment (including ducts and fans), and insulation of the structure, foundation and water piping. In addition to the mandatory requirements, the standards call for further energy efficiency measures that can be provided through a choice between performance and prescriptive compliance approaches. In buildings designed for mixed-use (e.g., commercial and residential), each section must meet the standards applicable to that type of occupancy.[39]

The performance approach provides for the calculation of an energy budget for each building and allows flexibility in building systems and features to meet the budget. The energy budget addresses space-conditioning, lighting, and water heating. Compliance with the budget is determined by the use of a California Energy Commission -approved computer software energy model. The alternative prescriptive standards require demonstrating compliance with specific minimum efficiency for components of the building such as building envelope insulation R-values, fenestration (areas, U-factor and solar heat gain coefficients of windows and doors) and heating and cooling, water heating, and lighting system design requirements. These requirements vary depending on the building's location in the State's 16 climate zones.

[38]California Code of Regulations. Title 24, Part 6.

[39]California Energy Commission, *2005 Building Energy Efficiency Standards for Residential and Non Residential Buildings,* P400-03-001F, Section 100(f), October 2005.

The 2005 standards that became effective Statewide October 1, 2005 include the following major changes:

- Updated energy budgets that recognize the time dependence of energy usage by season and time of day;
- Incorporation of new federal appliance standards and other advances in technology emerging from the State's Public Interest Energy Research program;
- Incorporation of new State standards for outdoor lighting and for indoor and outdoor signs; and/or
- Changes to improve the quality of construction and verification of reliable energy savings.

Executive Order S-3-05. On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05, which establishes Greenhouse Gas (GHG) emission reduction targets for California, and directs the California Environmental Protection Act (Cal/EPA) Secretary to coordinate the oversight of efforts to achieve them.

The targets established by Governor Schwarzenegger call for a reduction of GHG emissions to 2000 levels by 2010; a reduction of GHG emissions to 1990 levels by 2020; and a reduction of GHG emissions to 80 percent below 1990 levels by 2050.

AB 32: Global Warming Solutions Act. Governor Arnold Schwarzenegger signed AB 32 (Global Warming Solutions Act) into law on September 27, 2006, requiring that the California Air Resources Board (CARB) reduce GHG emissions by 25 percent by 2020. In the interim, CARB will begin to measure the GHG emissions of the industries it determines to be significant emitters. The bill also provides the Governor the ability to invoke a safety valve and suspend the emissions caps for up to one year in the case of an emergency or significant economic harm.

AB 32 required CARB to:

- Establish a statewide GHG emissions cap for 2020, based on 1990 emissions by January 1, 2008;
- Adopt mandatory reporting rules for significant sources of GHG by January 1, 2008;
- Adopt a plan by January 1, 2009 indicating how emission reductions will be achieved from significant GHG sources; and
- Adopt a list of early actions by July 1, 2007 that can be implemented before January 1, 2010.

SB 1368, Greenhouse Gas Emissions Performance Standard for Major Power Plant Investments. This law requires the California Energy Commission to develop and adopt by regulation a greenhouse gases emissions performance standard for long-term procurement of electricity by local publicly owned utilities on or before February 1, 2007. The regulation must also be consistent with the standard adopted by the CPUC for load-serving entities under their jurisdiction. On October 30, 2006, the California Energy Commission accomplished this by instituting a greenhouse gases emission performance standard.[40]

SB 107, Renewable Energy Procurement. This law, written by Senator Joseph Simitian (D-Palo Alto) required investor owned utilities such as Pacific Gas and Electric, Southern California Edison (SCE) and San Diego Gas and Electric (SDG&E), to have 20 percent of its electricity come from renewable sources by 2010. Previously, state law required that this target be achieved by 2017.

California Solar Initiative (CSI). On January 12, 2006, the CPUC approved the California Solar Initiative (R.04-03-017), which provides $2.9 billion in incentives between 2007 and 2017. The CPUC will oversee a $2.5 billion program for commercial and existing residential customers, funded through revenues and collected from gas and electric utility distribution rates. Furthermore, the California Energy Commission will manage $350 million targeted for new residential building construction, utilizing funds already allocated to the California Energy Commission to foster renewable projects between 2007 and 2011.

[40]California Energy Commission, SB 1368 Emissions Performance Standards website, *http://energyarchive.ca.gov/ghgstandards/*, accessed September 22, 2011.

On March 2, 2006, the CPUC opened a proceeding to develop rules and procedures for the California Solar Initiative and to continue consideration of policies for the development of cost effective, clean and reliable distributed generation (DG). On August 21, 2006, the Governor signed Senate Bill 1 (SB 1), which directs the CPUC and the California Energy Commission to implement the CSI program consistent with specific requirements and budget limits set forth in the legislation and directs the CPUC and the California Energy Commission to create 3,000 megawatts of new, solar produced electricity by 2017.

The CPUC has a rulemaking in progress to reconcile its decisions with SB 1, and it also continues to hold public workshops to continue designing program elements.

Current incentives provide an upfront, capacity-based payment for a new system. The CSI incentive system changed in 2007 when it moved to performance-based payments. In its August 24, 2006, decision, the CPUC shifted the program from volume-based to performance based incentives and clarified many elements of the program's design and administration.[41]

AB 2075, Reducing Dependence on Petroleum. The California Energy Commission and CARB are directed by law (2000 AB 2075) to develop and adopt recommendations for reducing dependence on petroleum. A performance based goal is to reduce petroleum demand to 15 percent below 2003 demand. The options include:[42]

Near-Term Options:

- Use more fuel efficient replacement tires with proper inflation;
- Improve fuel economy in government fleets; and
- Improve private vehicle maintenance.

Mid-Term Options:

- Double fuel efficiency of current model light duty vehicles to 40 miles per gallon; and
- Use natural gas-derived Fischer-Tropsch fuel as a 33 percent blending agent in diesel.

Long-Term Options:

- Introduce fuel cell light duty vehicles in 2012, increasing to ten percent of new vehicle sales by 2020, and 20 percent by 2030.

Recommendations in AB 2075 include:[43]

- The Governor and Legislature should adopt the recommended Statewide goal of reducing demand for on-road gasoline and diesel to 15 percent below the 2003 demand level by 2020 and maintaining that level for the foreseeable future.
- The Governor and Legislature should work with the California delegation and other states to establish national fuel economy standards that double the fuel efficiency of new cars, light trucks, and SUVs.
- The Governor and Legislature should establish a goal to increase the use of nonpetroleum fuels to 20 percent of on-road fuel consumption by 2020 and 30 percent by 2030.

SB 97, CEQA Guidelines for Greenhouse Gas Emissions. SB 97 required the Governor's Office of Planning and Research (OPR) to prepare CEQA guidelines for the mitigation of GHG emissions, including, but not limited to, effects associated with transportation or energy consumption. OPR and the Resources Agency are required to periodically review the guidelines to incorporate new information or criteria adopted by CARB pursuant to the Global Warming Solutions Act, scheduled for 2012.

[41]California Energy Commission, California Solar Initiative website, *http://www.gosolarcalifornia.ca.gov/*, accessed September 22, 2011.
[42]California Energy Commission/California Air Resources Board, *Reducing California's Petroleum Dependence*, August 2003.
[43]*Ibid*.

Local

The City of Los Angeles GREEN LA Plan. On May 15, 2007, Los Angeles Mayor Antonio Villaraigosa released the "GREEN LA – An Action Plan to Lead the Nation in Fighting Global Warming" (GREEN LA Plan) that has an overall goal of reducing the City of Los Angeles' greenhouse gas emissions by 35 percent below 1990 levels by 2030. This goal exceeds the targets set by both California and the Kyoto Protocol, and is the greatest reduction target of any large United States city. The cornerstone of the GREEN LA Plan is increasing the City's use of renewable energy to 35 percent by 2020. Key strategies listed in the GREEN LA Plan related to energy include the following:

Green the Power from the Largest Municipal Utility in the United States

- Meet the goal to increase renewable energy from solar, wind, biomass, and geothermal sources to 20 percent by 2010;
- Increase use of renewable energy to 35 percent by 2020;
- Let contracts for power imports from coal-fired power plants expire;
- Increase the efficiency of natural gas-fired power plants; and
- Increase biogas co-firing of natural gas-fired power plants.

Make Los Angeles a Worldwide Leader in Green Buildings

- By July 2007, present a comprehensive set of green building policies to guide and support private sector development;
- Transform Los Angeles into the model of an energy efficient city;
- Reduce energy use by all city departments to the maximum extent feasible.

Complete energy efficiency retrofits of all city-owned buildings to meet a 20 percent or more reduction in energy consumption

- Install the equivalent of 50 "cool roofs" per year by 2010 on new or remodeled city buildings;
- Install solar heating for all city-owned swimming pools;
- Improve energy efficiency at drinking water treatment and distribution facilities; and
- Maximize energy efficiency of wastewater treatment equipment.

Help Angelenos Be "Energy Misers"

- Distribute two compact fluorescent light (CFL) bulbs to each of the 1.4 million households in the city;
- Increase the level and types of customer rebates for energy efficient appliances, windows, lighting, and heating and cooling systems;
- Increase the distribution of energy efficient refrigerators to qualified customers; and
- Create a fund to "acquire" energy savings as a resource from LADWP customers.

EXISTING SETTING

Petroleum

In 2009, California consumed approximately 1.8 million barrels of oil per day, or ten percent of the total United States oil consumption.[44] In 2009, 39.51 percent of California's demand for petroleum came from California, 15.06 percent came from Alaska, and 45.43 percent was from foreign sources. Petroleum-based fuels account for 96 percent of California's transportation needs. The petroleum is refined to create the

[44]United States Energy Information Administration (EIA), Total Petroleum Consumption Estimates by Sector website, *http://www.eia.gov/state/seds/hf.jspincfile=sep_sum/plain_html/sum_use_tot.html*, accessed September 28, 2011.

following petroleum-based products: gasoline, jet fuel and kerosene, diesel, industrial fuel oil, lubricant oil, asphalt, and paraffin wax. There are no petroleum refineries within the West Adams CPA, and the nearest oil fields are the La Cienega Oil Field #2 (located to the west) and Inglewood Oil Field, (located less than 0.5 miles to the southwest).[45] However, as indicated in the General Plan Transportation Element, there are four oil pipelines partially located within the West Adams CPA which generally run through the northwest corner of the CPA.[46]

California is also one of the top producers of petroleum in the nation, with drilling operations primarily concentrated in Kern and Los Angeles Counties. A network of crude oil pipelines connects production areas to oil refineries in the Los Angeles area, the San Francisco Bay area, and the Central Valley. California oil refineries also process large volumes of Alaskan and foreign crude oil received at ports in Los Angeles, Long Beach, and the San Francisco Bay Area. Crude oil production in California and Alaska is in decline, and California refineries have become increasingly dependent on foreign imports. Led by Saudi Arabia and Ecuador, foreign suppliers now provide more than two-fifths of the crude oil refined in California. However, California's dependence on foreign oil remains less than the national average.[47]

The demand for petroleum for the residents and employees within the West Adams CPA is primarily gasoline used for transportation and can be purchased at gas stations located throughout the West Adams CPA. In 2008, the West Adams CPA experienced approximately 1.3 billion vehicle miles traveled (VMT) per year. Thus, by using the current CAFE standard of 27.5 miles per gallon for standard passenger cars, petroleum fuel consumed in 2008 by the West Adams CPA was approximately 47 million gallons.

Electricity

The LADWP provides electricity to residents and business within the City of Los Angeles. LADWP supplies more than 22 million megawatt-hours (MWh) of electricity a year to approximately 1.4 million residential and business customers.[48] LADWP owns and operates the majority of its generation, transmission, and distribution infrastructure, which include natural gas-fueled generation stations, coal-fired generating stations, nuclear-fueled generation stations, large hydroelectric generation stations, renewable resources, and distributed generation. **Table 4.16-18** shows LADWP's power supply mix. The net maximum and dependable plant capacities of all generating stations used by LADWP are 7,266 and 6,991 mega-watts (MW), respectively.[49] LADWP transmission and distribution system infrastructure includes 3,655 miles of transmission lines, 8,789 miles of overhead distribution lines, and 2,242 miles of underground distribution lines.[50]

[45]California Department of Conservation, *Oil, Gas, And Geothermal Fields in California*, 2001, available at *ftp://ftp.consrv.ca.gov/pub/oil/maps/Map_S-1.pdf*, accessed on September 29, 2011.

[46]City of Los Angeles General Plan, *Transportation Element*, 1999, Map C.2.

[47]United States Energy Information Administration (EIA), State Energy Profiles website, *http://tonto.eia.doe.gov/state/state_energy_profiles.cfm?sid=CA*, accessed April 18, 2011.

[48]City of Los Angeles Department of Water and Power, Our History website, *http://www.ladwp.com/ladwp/cms/ladwp001870.jsp*, accessed September 28, 2011.

[49]*Ibid.*

[50]City of Los Angeles Department of Water and Power, Facts and Figures website, *https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-factandfigures?_adf.ctrl-state=1cotehi1l9_4&_afrLoop=49530163083866*, accessed August 3, 2010.

TABLE 4.16-18: LADWP POWER SOURCE MIX

Power Source	Existing LADWP Power Source (MW)	Existing LADWP Power Source (Percentage)	2030 LADWP Power Source (MW)	2030 LADWP Power Source (Percentage)
Coal	1,679	19.88%	0	0.00%
Natural Gas	3,415	40.44%	5,797	51.41%
Nuclear	387	4.58%	387	3.43%
Large Hydro	1,738	20.58%	1,738	15.41%
Small Hydro	200	2.37%	200	1.77%
Wind	1,000	11.84%	1,680	14.90%
Solar	25	0.30%	995	8.82%
Geothermal	0	0.00%	320	2.84%
Generic RPS	0	0.00%	160	1.42%
Total	**8,444**	**100.00%**	**11,277**	**100.00%**

SOURCE: LADWP, presentation by Eric Tharp at 2010 Annual Meeting of Intermountain Power Agency 2010, *Building a New Los Angeles: 2010 Power Integrated Resource Plan*, available at *http://www.ipautah.com/data/upfiles4/newsletters/IRP%20for%20I PA%20LA.pdf,* February 2012; TAHA, 2012.

Electricity from coal-fired power sources represents approximately 20 percent of LADWP's power supply. The Navajo and the Intermountain Generating Stations, located in Arizona and Utah, respectively, supply the LADWP coal-generated electricity.[51]

Electricity from natural-gas-fueled power sources represents approximately 40 percent of LADWP's power supply. The Harbor, Haynes, Scattergood, and Valley generating stations supply the LADWP with natural-gas-fueled electricity. These generating stations are owned by the LADWP and are located throughout the Los Angeles Basin.[52]

Electricity from nuclear-fueled power sources represents approximately five percent of LADWP's power supply. The Palo Verde Nuclear Generation Station, located in Arizona, supplies the LADWP with nuclear-generated electricity.[53]

Electricity from large hydroelectric power sources represents approximately 23 percent of the LADWP's power supply. The Castaic Pumped Storage Power Plant and the Hoover Power Plant supply LADWP with hydroelectric-generated electricity, and are located in Castaic, California and Arizona, respectively.[54]

Electricity from wind, solar, geothermal and Renewable Portfolio Standard (RPS) sources represents approximately 12 percent of LADWP's power supply. LADWP's eligible renewable "small hydro" resources include the Owens Gorge, the Owens Valley and the Los Angeles Aqueduct hydroelectric plants. Other LADWP renewable resources and distributed generation include:

- Pleasant Valley Wind Project (82 MW)
- Powerex small hydro (50 MW)
- Digester gas from the Hyperion Treatment Plant used at Scattergood (22 MW)
- Solar Photovoltaics in the Los Angeles area (11 MW)
- Bradley landfill gas (6 MW)
- Penrose landfill gas (6 MW)
- Lopez Canyon landfill gas (2 MW)
- Fuel Cells (2 MW)

[51]City of Los Angeles Department of Water and Power, *2010 Integrated Resource Plan Draft for Public Review*, July 2010.
[52]*Ibid.*
[53]*Ibid.*
[54]*Ibid.*

In 2008, LADWP's electricity generation and distribution infrastructure delivered 24.8 million MWh of electricity to its customers. LADWP commercial users consumed the most electricity in 2008, approximately 12.6 million MWh, or 51 percent, of the electricity supplied by the LADWP. Residential customers consumed approximately 8.7 million MWh, or 35 percent, of electricity supplied by the LADWP in 2008. Industrial users consumed approximately 2.7 million MWh, or 11 percent, while other LADWP customers consumed approximately 0.65 million MWh, or approximately 0.03 percent.[55]

The estimated electricity usage of existing uses within the West Adams CPA is shown in **Table 4.16-19**. The total electricity usage within the West Adams CPA is approximately 741 million kilowatt-hours (kwh) per year. Single- and multi-family, as well as commercial land uses within the West Adams CPA use approximately 159, 266, and 186 million kwh per year of electricity, respectively. Industrial, open space, and public facilities land uses within the West Adams CPA use approximately 119, 3, and 7 million kwh per year of electricity, respectively. Electricity usage of the West Adams CPA represents approximately 3 percent of the total electricity usage of LADWP in 2008.

TABLE 4.16-19: ESTIMATED EXISTING ELECTRICITY USAGE WITHIN THE WEST ADAMS CPA

Use	Quantity	Units	Electricity Usage Rate (kwh/unit/year)/a/	Electricity Usage Generation (kwh/year)
Single-Family Residential/b/	24,829	dwelling units	6406	159,054,574
Multi-Family Residential	41,586	dwelling units	6406	266,399,916
Commercial	12,754,739	square feet	14.63	186,601,832
Industrial	7,573,013	square feet	15.77	119,426,415
Open Space	178,931/c/	square feet	14.63	2,617,761
Public Facilities	490,429	square feet	14.63	7,174,976
			Total Existing Electricity Usage	**741,275,473**

/a/ Electricity usage rates were derived from *California Energy Demand 2010-202 Adopted Forecast, Chapter 6: Los Angeles Department of Water and Power Planning Area, Form 1.1 – Electricity Consumption by Sector, page 209.* Form 1.1 provides total usage by sector (i.e. Residential, Commercial, and Industrial), which was divided by total units within that sector to arrive at the Electricity Usage Rates used for the calculations in this table.
/b/ The total dwelling units for the Single-Family Residential category were determined by dwelling units in the R-1 and R-1.5 zones
/c/ The open space land use is represented by the total building square footage on land that is identified as open space.
SOURCE: City of Los Angeles, Demographics Unit; TAHA 2012.

Natural Gas

The City is served by the investor-owned Southern California Gas Company (SoCalGas), a unit of Sempra Energy. SoCalGas serves approximately 20.3 million customers through 5.8 million meters of gas lines within a 20,000-square-mile service area that includes over 530 cities in Central and Southern California.[56] In 2008, approximately 5,517.4 million therms, or 533,533 million cubic feet of natural gas was consumed within the SoCalGas service area. Residential, industrial, and commercial customers consumed 2,479 million, 1,551 million, and 993 million therms of natural gas, respectively, and were the largest consumers.[57,58] SoCalGas anticipates average usage to decline due in part to increased energy efficiency of appliances, tighter building shells and the impact of energy efficiency programs.[59]

SoCalGas natural gas supplies originate from sedimentary basins located in California, New Mexico, west Texas, the Rocky Mountains, and western Canada. Interstate pipelines used by SoCalGas and San Diego Gas & Electric (SDG&E) have a natural gas upstream capacity of 7,275 million cubic feet per day, or

[55]California Energy Commission, Electricity by Entity website, *http://www.ecdms.energy.ca.gov/elecbyutil.aspx*, accessed April 18, 2011.
[56]Southern California Gas Company, Company Profile website, *http://www.socalgas.com/about-us/company-info.shtml*, accessed April 18, 2011.
[57]California Energy Commission, California Energy Consumption Database website, *http://ecdms.energy.ca.gov/*, accessed April 20, 2011.
[58]One therm is equal to 96.7 cubic feet of natural gas.
[59]Southern California Gas Company, *California Gas Report*, 2008.

218,250 million cubic feet per month.[60] Additionally, SoCalGas and SDG&E currently have firm receipt capacity (i.e. access to supply from interstate pipelines for core customers) of 3,875 million cubic feet of natural gas.[61] Locally, SoCalGas distributes natural gas through an extensive network of approximately 41,500 miles of underground gas mains.

By 2030, average use per meter by single-family residential customers is anticipated to decline to 436 therms, while multi-family average use per meter is forecasted to decline to 239 therms. For single-family households, this amounts to an overall decline of 15.34 percent in the temperature-adjusted use per customer, or an average annual decline in use of 0.67 percent per customer. For multi-family households, this amounts to an overall decline of 23.4 percent, or an average annual decline in use of 1.02 percent per customer. Energy use per meter for all categories of residential customers is projected to decline due to expected energy savings from improved building construction and insulation, appliance standards and utility energy efficiency programs.

Underground storage of natural gas plays a vital role in balancing the region's energy supply and demand. SoCalGas owns and operates four underground storage facilities located at Aliso Canyon, Honor Rancho, Goleta, and Playa del Rey. These facilities have a total storage capacity of 131.1 billion cubic feet (Bcf). Stored gas is appropriated as follows: 79 Bcf is allocated to Core residential, small industrial, and commercial customers; 5 Bcf is used for system balancing; and the remainder is available to other customers.

The estimated natural gas usage of existing uses within the West Adams CPA is shown in **Table 4.16-20**. The total natural gas usage within the West Adams CPA is approximately 314 million cubic feet per month. Single-family, multi-family, and commercial land uses within the West Adams CPA use approximately 85, 70, and 121 million cubic feet per month of natural gas, respectively. Industrial, open space, and public facilities uses within the West Adams CPA use approximately 36, 0.6, and 1.7 million cubic feet per month of natural gas, respectively. Natural gas usage of the West Adams CPA represents approximately 0.7 percent of the total natural gas usage of SoCalGas in 2008.

TABLE 4.16-20: ESTIMATED NATURAL GAS USAGE FROM EXISTING USES WITHIN THE WEST ADAMS CPA

Use	Quantity	Units	Natural Gas Usage Rate (cubic feet/unit/month)/a,b,c/	Natural Gas Usage (cubic feet/month)
Single-Family Residential	24,829	dwelling units	3424.791667	85,034,152
Multi-Family Residential	41,586	dwelling units	1689.563889	70,262,204
Commercial	34,014	employee	3550.017088	120,750,281
Industrial	10,097	employee	3550.017088	35,844,523
Open Space/d/	179	employee	3550.017088	635,208
Public Facilities	490	employee	3550.017088	1,741,031
			Total Existing Natural Gas Usage	**314,267,399**

/a/ The natural gas usage rate for Single-Family Residential use was obtained from *2009 California RASS, Volume 2.* The study lists usage rates in therms per year, which were converted to cubic feet by using a conversion rate of 1Therm = 96.7 cubic feet of gas.
/b/ The *2009 California RASS* includes separate usage rates for townhomes, 2-4 unit apartment buildings, and 5+ unit apartment buildings, which were averaged to arrive at the usage rate used above for Multi-Family Residential use. The study lists usage rates in therms per year, which were converted to cubic feet by using a conversion rate of 1Therm = 96.7 cubic feet of gas.
/c/ The usage rate for Commercial, Industrial, Open Space, and Public Facilities were derived by first obtaining the total gas consumption in LA County for Non-Residential uses from the *CA Energy Commission ECDMS* website. Then total employment in Los Angeles County was obtained from the *U.S. Census Bureau* website and used to divide total gas consumption for Non-Residential uses to arrive at a usage rate per employee.
/d/ The open space land use is represented by the total building square footage on land that is identified as open space.
SOURCE: *2009 California Residential Appliance Saturation Study (RASS): Volume 2, Table 2-21: Gas UECs by Residence Type for All Households and for Households With Gas Account Data,* page 21; U.S Census Bureau, State and County QuickFacts website, *http://quickfacts.census.gov/qfd/states/06/06037.html,* accessed February 16, 2012; California Energy Commission, Energy Consumption Data Management System (ECDMS) website, *http://www.ecdms.energy.ca.gov/,* accessed February 16, 2012.

[60]Beginning in April 2008, gas supplies to serve both SoCalGas' and SDG&E's retail core gas demand are procured with a combined portfolio. SoCalGas and SDG&E plan and design their systems to provide continuous service to their core customers under an extreme peak day event. The extreme peak day design criteria is defined as a 1-in35 likelihood event for each utility's service area. For more information, please see the *2008 California Gas Report.*

[61]*Ibid.*

THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant impact related to energy if it would:

- Result in the wasteful or inefficient use of energy as a result of project implementation.

City of Los Angeles CEQA Thresholds Guidelines

In addition, based on the criteria set forth in the City of Los Angeles CEQA Thresholds Guide (2006), the determination of significance shall be made on a case-by-case basis, considering the following factors.

For impacts related to energy:

- Would the project design or operation conflict with adopted energy conservation plans or policies of the City, or exceed the growth anticipated in the applicable Community Plan?
- Would the project, result in the need for new (off-site) energy supply facilities, or major capacity enhancing alterations to existing facilities?

For impacts related to energy and/or distribution infrastructure:

- The extent to which the project would require new (off-site) energy supply facilities and distribution infrastructure, or capacity enhancing alterations to existing facilities;
- Whether and when the needed infrastructure was anticipated by adopted plans; or
- The degree to which the project design and/or operations incorporate energy conservation measures, particularly those that go beyond City requirements.

IMPACTS

The proposed project is the adoption of the West Adams New Community Plan and its implementing ordinances. These ordinances, which include standards and guidelines for projects within the West Adams CPA, include a Community Plan Implementation Overlay District (CPIO) containing several subdistricts throughout the plan area, as well as amendments to the existing Crenshaw Corridor Specific Plan. The proposed project further involves General Plan Amendments and zone changes to create consistency with the City's General Plan Framework Element, as well as create consistency between both planned and existing uses of parcels and their relationship to surrounding areas. Through implementation of the CPIO, the proposed project further restricts detrimental uses, incentivizes development in targeted areas, and provides development standards to ensure that new construction is consistent with neighborhood character, as well as corrects minor errors within the existing West Adams Community Plan. While there are energy impacts to consider within the West Adams CPA, they are subject to the federal, State, and local policies and guidelines mentioned above; therefore, the proposed West Adams New Community Plan and its implementing ordinances do not contain any specific guidelines that would affect energy.

For discussion of operations impacts associated with the proposed project, full implementation of the project (year 2030) will be analyzed.

Construction

The West Adams New Community Plan describes the capacity for future development for a portion of the City and does not constitute a commitment to any project-specific construction. Therefore, no further discussion of construction impacts is necessary.

Operations

Petroleum

Transportation energy is derived from petroleum products as automobiles and trucks consume gasoline and diesel fuel. It is anticipated that operation of the proposed project would generate approximately 1.5 billion vehicle miles traveled (VMT) per year and would require approximately 54 million gallons of petroleum fuel. As mentioned previously, in 2008, the West Adams CPA experienced approximately 1.3 billion VMT per year, which required 47 million gallons of petroleum fuel.[62] Consequently, the anticipated increase in demand for petroleum fuel as a result of the proposed project is approximately 7 million gallons per year by 2030.

The VMT for Los Angeles County in 2008 was estimated to be 39,159 million miles.[63] Assuming the same average fuel economy for passenger vehicles, Los Angeles County fuel consumption in 2008 was estimated to be approximately 1.424 billion gallons. Thus, the proposed project's estimated additional fuel consumption represents less than one percent of petroleum fuel demand in 2008 within Los Angeles County.

In addition, as discussed in Section 4.15 Transportation and Traffic, the proposed project includes many beneficial elements aimed to encourage alternative modes of travel, such as the creation of more pedestrian friendly environments around transit stations and the provision of bicycle facilities along major corridors. Furthermore, the proposed project would facilitate a greater degree of transit-oriented development since future Expo LRT stations are to be located within the West Adams CPA. Specifically, these stations will be located at Venice/Robertson, La Brea/Farmdale, and Jefferson/La Cienega. Accordingly, this would reduce automobile reliance and related fuel consumption by providing housing opportunities for the community within close proximity to transit, as well as local-serving businesses and retail. Therefore, the proposed project would result in less-than-significant impacts related to petroleum.

Electricity

Demand for electricity is expected to increase incrementally over the lifespan of the proposed project. As discussed in Section 4.10 Land Use, the majority of the land use changes proposed by the West Adams New Community Plan and implementing ordinances consist of General Plan Amendments to create consistency with Framework Land Use designations. However, some proposed changes in floor area ratios (FAR) and heights would increase the intensity of development, thereby increasing population, housing, and employment; all of which are factors that can affect demand for electricity within the West Adams CPA.

Implementation of the proposed project would incrementally increase population, housing, and employment within the West Adams CPA by 5.9 percent, 5.9 percent, and 7.9 percent, respectively, until the buildout year of 2030. The increases in population, housing, and employment would cause overall demand for electricity in the West Adams CPA to increase by 165,899,425 kwh per year, as detailed in **Table 4.16-21**. This increase amounts to a 22.4 percent increase over existing electricity usage within the West Adams CPA. When compared to the entire City, the estimated increase in electricity usage due to the proposed project is less than 0.01 percent of total electricity usage in Los Angeles in 2008. The dependable plant capability of LADWP is 7,226 MW.[64] This equates to a maximum production of 63,299,760,000 kwh per year by LADWP.[65]

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[62] Petroleum fuel demand calculations were performed using the current CAFE standard of 27.5 miles per gallon for standard passenger cars.

[63] United States Environmental Protection Agency, *Emissions Facts: Greenhouse Gas Emissions from a Typical Passenger Vehicle*, April 12, 2011, available at *http://www.epa.gov/otaq/climate/publications.htm#factsheets*, accessed June 30, 2011.

[64][64] LADWP, Facts and Figures website, *https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-factandfigures?_adf.ctrl-state=1cotehi1l9_4&_afrLoop=49530163083866*, accessed August 3, 2010.

[65] This is a theoretical maximum capacity figure that assumes LADWP being able to utilize all 7,226 MW capacity of their system uninterrupted 24 hours per day for an entire year. This figure was arrived at by multiplying total capacity (7,226 MW) by total hours in year (8,760 hours/year). The following conversions were also used: 1 MW = 1,000 KW; 1 MWh = 1,000 kwh.

TABLE 4.16-21: ESTIMATED ELECTRICITY USAGE FROM THE PROPOSED PROJECT

Use	Quantity	Units	Electricity Usage Rate (kwh/unit/year)/a/	Electricity Usage Generation (kwh/year)
Single-Family Residential	30,903/b/	dwelling units	6406	197,964,618
Multi-Family Residential	55,215	dwelling units	6406	353,707,290
Commercial	16,623,424	square feet	14.63	243,200,688
Industrial	4,335,062	square feet	15.77	68,363,928
Open Space	216,233/c/	square feet	14.63	3,163,485
Public Facilities	2,787,074	square feet	14.63	40,774,889
			Total Existing Electricity Usage	**907,174,898**
			Existing Electricity Usage	**741,275,473**
			Net Electricity Usage of Proposed Project	**165,899,425**

/a/ Electricity usage rates were derived from *California Energy Demand 2010-2020 Adopted Forecast, Chapter 6: Los Angeles Department of Water and Power Planning Area, Form 1.1 – Electricity Consumption by Sector, page 209.* Form 1.1 provides total usage by sector (i.e. Residential, Commercial, and Industrial), which was divided by total units within that sector to arrive at the Electricity Usage Rates used for the calculations in this table.
/b/ The total dwelling units for the Single-Family Residential category were determined by dwelling units in the R-1 and R-1.5 zones.
SOURCE: TAHA, 2012.

However, during Fiscal Year 2008 LADWP experienced an average Peak Demand of 4,585 MW. If the average Peak Demand in FY 2008 occurred continuously, 24-hours per day, for an entire year, LADWP would have produced 40,164,600,000 kwh.[66] This theoretical maximum capacity scenario would leave LADWP with an additional 23,135,160,000 kwh of potential electricity production in FY 2008. Thus, the expected electricity demand from the proposed plan in the West Adams CPA would be 0.7 percent of the total remaining potential electricity production.

As shown in **Table 4.16-18**, above, LADWP's energy mix in 2030 is expected to be as follows: 51 percent natural gas, 24 percent wind and solar, 3 percent nuclear, 18 percent hydropower, and 4 percent from other sources; LADWP plans to phase out the use of coal as a source of power. In order to phase out the use of coal and to meet projected peak demands, LADWP currently has three projects under development: Barren Ridge Renewable Transmission Project, Southern Transmission System Upgrade Project, and the Pacific Direct Current Intertie (PDCI) Proposed Upgrade Study. These projects would increase wind and solar facilities and upgrade equipment to increase their capacity and efficiency.

LADWP projects annual peak demand growth over the next twenty years to be approximately 1.3 percent and predicts their 2030 peak demand would be 8,116 MW.[67] LADWP's estimated 2030 peak demand considers potential and likely changes that would increase the amount of electricity people will consume such as purchasing more air conditioners to combat more frequent extreme weather conditions as a result of climate change, and the increased use of electric vehicles.[68] As discussed above, the proposed project would increase existing demand for electricity by less than 0.01 percent, which is reflected in LADWP's projected increase in peak demand for electricity. LADWP estimates they will produce 11,277 MW in 2030, thereby producing 3,161 MW (or 28 percent) more than the projected peak demand in 2030. Therefore, LADWP would generate adequate electrical supply at existing and planned facilities to provide electricity to the proposed project.

Considering the impacts discussed above, there is no need for new (off-site) electrical generation facilities or major enhancements to accommodate the proposed project. This is because the proposed project would incrementally build towards expected usage rates in year 2030. When prorated over the effective lifespan of the proposed project (i.e., 20 years), the increase from existing electricity usage rate (year 2008) is 8.2 million kwh per year. This amount is a 1.1 percent increase over year 2008 usage rates for each year of

[66]LADWP, *2010 Power Integrated Resources Plan*, 2010, page A-16.
[67]LADWP, *2010 Power Integrated Resources Plan*, 2010.
[68]LADWP expects the use of Plug-in Hybrid Electric Vehicles to exceed 350,000 vehicles to be used within their service area by 2030. (LADWP, *2010 Integrated Resources Plan*, 2010, available at *http://www.lapowerplan.org/documents/IRP_In%20BriefRev2.pdf*, accessed September 28, 2011).

the project. Such an amount would not exceed the electricity generation potential of LADWP or the capacity of the distribution infrastructure.

New development occurring from buildout of the proposed project would be subject to Title 24, part 6 of the California Administrative code, the Energy Efficiency Standards for Residential and Nonresidential Buildings, which requires local jurisdictions to use energy efficient appliances, weatherization techniques, and efficient cooling and heating systems to reduce energy demand stemming from new development. In addition, development occurring from the implementation of the proposed project would be required to comply with the City of Los Angeles' Green Building Code Energy Efficiency requirements. Consequently, as projects are built within the West Adams CPA, they will be in compliance with all applicable energy conservation plans and policies of the City. Therefore, the proposed project would result in less-than-significant impacts related to electricity.

Natural Gas

Over the course of implementation of the proposed project several changes (such as increased outdoor temperatures due to climate change, and the increased use of natural gas vehicles) are expected to affect the demand for natural gas. SoCalGas projects there will be an average annual decline in use of 0.67 percent per single-family household customer and 1.02 percent per multi-family household customer due to changes in outdoor temperatures. In addition, energy use per meter for all categories of residential customers is projected to decline due to expected energy savings from improved building construction and insulation, appliance standards, and utility energy efficiency programs. In addition, the Natural Gas Vehicles (NGV) market is projected to grow due to federal, State, and local incentives and regulations related to the purchase and operation of alternate fuel vehicles and due to the rising costs of petroleum. At the end of 2009, there were 254 compressed natural gas (CNG) fueling stations delivering 9.5 billion cubic feet (Bcf) of natural gas during the year. SoCalGas projects the NGV market will grow in demand from 9.5 Bcf in 2009 to 11.2 Bcf in 2015 and 16.8 Bcf in 2030.

Demand for natural gas is expected to increase incrementally over the lifespan of the proposed project. As discussed in Section 4.10 Land Use, the majority of the land use changes proposed by the West New Adams Community Plan and implementing ordinances consist of General Plan Amendments to create consistency with Framework Land Use designations. However, some proposed changes in Floor Area Ratios (FAR) and heights would increase the intensity of development, thereby increasing population, housing, and employment; all factors that can affect demand for natural gas within the West Adams CPA. The proposed plan allows for increases in population, housing unit development, and employment by 5.9 percent, 5.9 percent, and 7.9 percent, respectively, over the prior 1998 plan capacity.

The increases in population, housing, and employment would cause overall demand for natural gas in the West Adams CPA to increase by 73 million cubic feet per month, as detailed in **Table 4.16-22**. The increased demand of natural gas is approximately 23 percent higher than the existing natural gas usage in the West Adams CPA. When compared to total consumption by the entire SoCalGas service territory in 2008, the estimated increase in natural gas usage due to the proposed project is 0.17 percent. Furthermore, SoCalGas' total supply capacity, as discussed above, is nearly 2.7 trillion cubic feet per year. Of the total supply capacity by SoCalGas, 534 billion cubic feet was consumed in 2008 in the SoCalGas service territory, or 20.1 percent of total supply capacity. Thus, the total remaining supply capacity of SoCalGas is 2.1 trillion cubic feet per year. The total expected increase in natural gas usage in the West Adams CPA due to the proposed project is approximately 73.4 million cubic feet per month and, therefore, would consume much less than 0.01 percent of SoCalGas' remaining supply capacity.

TABLE 4.16-22: ESTIMATED NATURAL GAS USAGE OF THE PROPOSED PROJECT

Use	Quantity	Units	Natural Gas Usage Rate (cubic feet/unit/month)/a,b,c/	Natural Gas Usage (cubic feet/month)
Single-Family Residential/d/	30,903	dwelling units	3424.791667	105,836,337
Multi-Family Residential	55,215	dwelling units	1689.563889	93,289,270
Commercial	44,326	employee	3550.017088	157,358,057
Industrial	5,780	employee	3550.017088	20,519,395
Open Space/e/	216	employee	3550.017088	766,804
Public Facilities	2,787	employee	3550.017088	9,893,898
			Estimated Total Natural Gas Usage of Proposed Project	**387,663,761**
			Less Existing Natural Gas Usage	**314,267,399**
			Net Natural Gas Usage of Proposed Project	**73,396,361**

/a/ The natural gas usage rate for Single-Family Residential use was obtained from *2009 California RASS, Volume 2.* The study lists usage rates in therms per year, which were converted to cubic feet by using a conversion rate of 1Therm = 96.7 cubic feet of gas.
/b/ The *2009 California RASS* includes separate usage rates for townhomes, 2-4 unit apartment buildings, and 5+ unit apartment buildings, which were averaged to arrive at the usage rate used above for Multi-Family Residential use. The study lists usage rates in therms per year, which were converted to cubic feet by using a conversion rate of 1Therm = 96.7 cubic feet of gas.
/c/ The usage rate for Commercial, Industrial, Open Space, and Public Facilities were derived by first obtaining the total gas consumption in LA County for Non-Residential uses from the *CA Energy Commission ECDMS* website. Then total employment in Los Angeles County was obtained from the *U.S. Census Bureau* website and used to divide total gas consumption for Non-Residential uses to arrive at a usage rate per employee.
/d/ The total dwelling units for the Single-Family Residential category were determined by dwelling units in the R-1 and R-1.5 zones.
/e/ The open space land use is represented by the total building square footage on land that is identified as open space.
SOURCE: *2009 California Residential Appliance Saturation Study (RASS): Volume 2, Table 2-21: Gas UECs by Residence Type for All Households and for Households With Gas Account Data, page 21;* U.S Census Bureau, State and County QuickFacts website, *http://quickfacts.census.gov/qfd/states/06/06037.html,* accessed February 16, 2012; California Energy Commission, Energy Consumption Data Management System (ECDMS) website, *http://www.ecdms.energy.ca.gov/,* accessed February 16, 2012.

The 2010 California Gas Report provides estimates of projected supply and demand within the SoCalGas service area over the 2010 to 2030 planning horizon.[69] In 2030, SoCalGas projects gas demand to be 2,467 million cubic feet per day and to have an available supply of 3,875 million cubic feet per day. As shown in **Table 4.16-22**, the project would result in a net increase demand of 73,396,361 cubic feet per month and, therefore, would consume much less than 0.01 percent of SoCalGas' 2030 projected available supply. Therefore, the proposed project would result in less-than-significant impacts related to natural gas.

MITIGATION MEASURES

Construction

The West Adams New Community Plan describes the capacity for future development for a portion of the City and does not constitute a commitment to any project-specific construction. Therefore, no mitigation measures are required.

Operations

Petroleum

Impacts related to petroleum would be less than significant. No mitigation measures are required.

Electricity

Impacts related to electricity would be less than significant. No mitigation measures are required.

Natural Gas

Impacts related to natural gas would be less than significant. No mitigation measures are required.

[69] Southern California Gas Company, California Gas Report, 2010, available at *http://www.socalgas.com/regulatory/documents/cgr/2010_CGR.pdf*, accessed on September 29, 2011.

SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Construction

The West Adams New Community Plan describes the capacity for future development for a portion of the City and does not constitute a commitment to any project-specific construction. Therefore, no impacts related to construction would occur.

Operations

Petroleum

Impacts related to petroleum were determined to be less than significant without mitigation.

Electricity

Impacts related to electricity were determined to be less than significant without mitigation.

Natural Gas

Impacts related to natural gas were determined to be less than significant without mitigation.