

4.13 UTILITIES AND SERVICE SYSTEMS

INTRODUCTION

*The following sections address water supply and conveyance, sewage collection and treatment, and solid waste collection and disposal services. The 2005 Urban Water Management Plan prepared by the Glendale Water and Power Department provided information on domestic water supply. A copy of the 2005 Urban Water Management Plan is provided in **Appendix 4.13**. Information on solid waste collection and disposal referred to in this section was collected from the City of Glendale.*

ENVIRONMENTAL SETTING

Existing Conditions

Water Supply

The Glendale Water and Power Department provides water service for domestic, irrigation, and fire protection purposes to the City of Glendale. The City has four sources of water to meet existing and projected water demands. These sources consist of water imported from the Metropolitan Water District (MWD), groundwater from the San Fernando Groundwater Basin, groundwater from the Verdugo Groundwater Basin, and recycled water.

The City of Glendale consumed approximately 32,700 acre-feet of water during fiscal year 2004–05. Of this total, the MWD provided approximately 69 percent (22,700 acre-feet), about 20 percent (6,500 acre-feet) was pumped from the San Fernando Basin, 7 percent (2,200 acre-feet) was pumped from the Verdugo Basin and the remaining 4 percent (1,300 acre-feet) was supplied by the City's water reclamation system.¹ Each of the City's four water sources is described below.

Metropolitan Water District

The MWD provides supplemental water from Northern California via the State Water Project (SWP) and the Colorado River via the Colorado River Aqueduct to the coastal area of Southern California. Within its service area, the MWD has 27 member agencies that provide water to 16 million people. All member agencies use and develop as much of their local water supplies as possible, and purchase the remainder from MWD meet local demands. The City of Glendale is a member agency of MWD. Glendale presently receives about 22,700 acre-feet per year of water from the MWD. MWD water is delivered to Glendale through three service connections with capacities of 48, 10, and 20 cubic feet per second, respectively.

In May 2007, a federal court invalidated the Biological Opinion issued by the U.S. Fish and Wildlife Service for operations of the State Water Project (SWP) and Central Valley Project with regard to Delta smelt (*Hypomesus transpacificus*), a federally- and state-listed threatened fish species that inhabits the estuaries of the Bay-Delta region. Prior to this court ruling, the federal wildlife agencies and state and federal project operators voluntarily reinitiated consultation under the Endangered Species Act to address impacts from project operations. The reconsultation process is scheduled for completion in late

¹ Glendale Water & Power, *2005 Urban Water Management Plan*, adopted December 2005, Table II-3, p. 12.

summer or fall of 2008 with the new Biological Opinions and permits issued at that time. In the meantime, the court is conducting a remedies phase to address actions that may need to be taken in the interim to ensure that project operations will not jeopardize the continued existence of the delta smelt. On May 31, 2007, the California Department of Water Resources (DWR) voluntarily shut down SWP pumps for 17 days in an effort to protect the Delta smelt. These events have highlighted the challenges that water suppliers throughout the state currently face regarding supplies from the Delta.

At present, several proceedings concerning Delta operations are ongoing to evaluate options to address delta smelt impacts and other environmental concerns. In addition to the reconsultation process and the interim remedies proceedings to address immediate environmental concerns, the Delta Vision process and the Bay-Delta Conservation Plan process are defining long-term solutions for the Delta. MWD is actively engaged in all of these processes and in May and September 2007 its Board adopted a framework and directions for key elements of a Delta Action Plan to address water supply risks in the Delta both for the near and long term. The near- and mid-term actions outlined in the Delta Action Plan are intended to reduce fishery and earthquake related risks, such as aggressive real-time monitoring to avoid fishery impacts, ecosystem restoration, near- and mid-term physical modifications to Delta channels, local water supply projects, and emergency preparedness and response plans.

The Delta Vision process, established by Governor Schwarzenegger, is aimed at identifying long-term solutions to the conflicts in the Delta. The Delta Vision Blue Ribbon Task Force is scheduled to present its findings and recommendations by January 1, 2008 for a sustainable Delta as a healthy ecosystem and water supply source. The Task Force is scheduled to present its Strategic Plan to implement Delta solutions by October 31, 2008. In addition, state and federal resource agencies and various environmental and water user entities are currently engaged in the development of the Bay-Delta Conservation Plan aimed at addressing ecosystem needs and securing long-term operating permits for the SWP. The Bay-Delta Conservation Plan process is scheduled for completion during the third quarter of 2009 with acquisition of appropriate permits and completion of the associated environmental impact statement/impact report.

In response to the recent developments in the Delta, MWD is engaged in planning processes that will identify solutions that, when combined with the rest of its supply portfolio, should ensure a reliable long-term water supply for its member agencies. In the near term, MWD will continue to rely on the plans and polices outlined in its Regional Urban Water Management Plan and Integrated Water Resources Plan (IRP) to address water supply shortages and interruptions (including potential shut downs of SWP pumps) to meet water demands. An aggressive campaign for voluntary conservation and recycled water usage, curtailment of groundwater replenishment water and agricultural water delivery are some of the actions outlined in the RUWMP. MWD is maximizing supplies from existing agreements for water

supply from its Palo Verde Crop Management and Water Supply Program and working with State of Arizona in withdrawing water previously stored in their groundwater basin. In addition, MWD's IRP supply portfolio includes pursuing water transfers as needed, such as the purchase of 200,000 acre-feet of previously stored SWP supplies in the San Bernardino groundwater basin. MWD is currently in the process of preparing a shortage allocation plan that may affect the allocation of water available to Glendale and other member agencies. If necessary, reduction in municipal and industrial water use and mandatory water allocation could be implemented.

Local Groundwater Supplies

Glendale receives its groundwater supply from the San Fernando and Verdugo Groundwater Basins. The rights of the City to San Fernando and Verdugo Basin groundwater supplies are defined by the stipulated judgment in *The City of Los Angeles vs. The City of San Fernando, et al.* (1979). In addition, a ten-year agreement between the Cities of Glendale, Burbank and Los Angeles, effective October 1, 2007, also affects the parties' pumping rights in the San Fernando Basin. In the stipulated judgment, the Court found that under "Pueblo" Water Rights, the City of Los Angeles owns all native San Fernando Basin surface and ground water supplies, and that Glendale is entitled to an 20 percent annual "Return Flow Credit" from the San Fernando Basin. The 20 percent figure is based on the assumption that 20 percent of the water used by the City percolates into the groundwater table and is equal to about 5,500 acre-feet per year, depending on the overall municipal use each year. This return flow credit is the City's primary water right in the San Fernando Basin. Glendale also has the right to extract additional water subject to payment to the City of Los Angeles at a cost generally equivalent to the cost of MWD supplies.

Due to groundwater contamination in the San Fernando Basin, the City has not been able to fully use its return flow credit since 1979. As a result, the City has accumulated approximately 61,833 acre-feet of unused return flow credits in the basin. Under the stipulated judgment, Glendale could extract all of these accumulated stored water credits. Pursuant to the ten-year agreement, Glendale may, in any one year, extract a limited portion of these accumulated stored water credits. The amount that can be extracted is determined annually by the Watermaster based upon a formula that ensures that the parties' combined pumping does not cause water levels in the San Fernando Basin aquifer to drop below a defined level (-655,370 acre feet). The agreement also provides that Los Angeles will invest in capital projects to improve the recharge of groundwater into the San Fernando Basin. The agreement further provides that the parties will agree upon the scope of a study to reevaluate the amount of water that can safely be extracted without harming the San Fernando Basin. This may, in the future, affect the parties' groundwater rights.

In addition to extracting a limited quantity of its accumulated stored water credits, Glendale may, in any one year, extract from the San Fernando Basin an amount not to exceed 10 percent of its last annual credit for import return, subject to a requirement that the water be underpumped in the following year, or a payment be made to Los Angeles for the water.

Water in the San Fernando Basin is currently available for municipal use, and the City of Glendale currently utilizes approximately 6,500 acre-feet from the basin annually. The Glendale Water Treatment Plant and eight extraction wells pump, treat, and deliver water from the basin to Glendale via its Grandview Pumping Station. The plant, with a capacity of 5,000 gallons per minute, can reliably provide a maximum of 7,200 acre-feet per year for municipal use in Glendale.²

As for the Verdugo Basin, the judgment described above gives the City of Glendale the right to extract 3,856 acre-feet from this basin annually. The City currently utilizes approximately 2,200 acre-feet per year from the basin. Production of water has been highly variable in the past due to rainfall conditions and past contamination from septic tanks in the area. The Verdugo Park Water Treatment Plant and five extraction wells pump, treat, and deliver water to the City for municipal use. Two pumps at the treatment plant currently extract approximately 890 acre-feet per year from the basin while three wells located north of the treatment plant extract the remaining 1,110 acre-feet.³ The plant, with a capacity of 1,150 gallons per minute, can reliably produce a maximum of about 2,300 acre-feet per year. However, due to extraction problems, additional extraction capacity will need to be developed in order for the City to utilize its full rights to the basin.⁴ The City of Glendale is actively working to increase its extraction capacity in the Verdugo Basin, so that the City's full adjudicated water right can be extracted to the extent possible given hydrological limitations.

Reclaimed Water System

The Los Angeles/Glendale Water Reclamation Plant provides reclaimed water in the City of Glendale for non-potable uses such as irrigation. The Reclamation Plant has a capacity of 20 million gallons per day and has been delivering recycled water to the City since the late 1970s. Based on a contract between the Cities of Los Angeles and Glendale, the City is entitled to 50 percent of any effluent produced at the plant, or 10 million acre-feet per year. In 2005, the City utilized approximately 1,300 acre-feet of water from the Reclamation Plant for non-potable uses. Treated wastewater not utilized by either Glendale or Los Angeles is discharged into the Los Angeles River.

² Ibid., p. 20.

³ Personal conversation with Raja Takidin, Glendale Water & Power, May 10, 2006.

⁴ Glendale Water & Power, *2005 Urban Water Management Plan*, adopted December 2005, p. 54.

Glendale currently has a “backbone” recycled water distribution system consisting of 20 miles of mains, six pumping plants, and five storage tanks to deliver recycled water to users. The objective is eventually to increase the use of recycled water to meet 10 percent of Glendale’s total water demand.⁵

Water Distribution System

Potable Water System

The main water distribution system in the City of Glendale includes 378 miles of water mains, 28 pumping plants and 30 reservoirs and water tanks. Both the Glendale Water Treatment Plant and the Verdugo Park Water Treatment Plant provide treatment for up to 9 million gallons of water per day. Of the approximately 32,700 acre-feet of water consumed by users in fiscal year 2004–05, residential customers utilized about 87 percent, commercial customers used about 12 percent, industrial customers used less than 1 percent, and another 1 percent was utilized for irrigation.⁶

There are seven water pressure zones in the City’s water system. The Project site is located within the Elevation 724 service zone, which is served by the Western and Diederich Reservoirs. The Western Reservoir has a 14.6-million-gallon capacity and is located at 1705 Bel Aire Drive, approximately 2 miles northwest of the Project site. The Diederich Reservoir has a 57.5-million-gallon capacity and is located at 1430 Campbell Street, approximately 1 mile northeast of the Project site.⁷

Existing water lines serving the Project site include a 12-inch line in East Broadway and a 6-inch line in North Louise Street. Static water pressure is between 65 and 75 pounds per square inch (psi).⁸ Lateral lines extending from the Hollywood Production Center and proposed residential building would connect to these lines. No new water mains would be required to serve the Project.

Reclaimed Water System

The City of Glendale has an established reclaimed water system consisting of five reservoirs with a total capacity of 1.1 million gallons, six pumping plants, and 20 miles of recycled water lines. Reclaimed water derived from the Los Angeles/Glendale Water Reclamation Plant serves a number of public and private users that consume approximately 1.2 million gallons of reclaimed water per day.

⁵ Ibid., p. 49.

⁶ Ibid., Table II-4, p. 13.

⁷ Ibid., Figure 3.

⁸ Written communication with Rodney Okamura, Civil Engineering Associate, Glendale Water and Power, August 22, 2007.

Reclaimed water lines currently do not extend to the Project site. The closest reclaimed line is a 30-inch line located at the intersection of Brand Boulevard and Colorado Street, approximately 0.4 mile to the south of the Project site.

It is the City's policy to require an applicant, property owner, or customer to use recycled water where the use of recycled water is "feasible, appropriate, and acceptable to all applicable regulatory agencies for the purposes of landscape irrigation, agricultural irrigation, filling of decorative foundations, in office buildings for toilet flushing, construction water, industrial process water, or recreational/ ornamental impounds, or other uses permitted by the regulatory agencies." In this case, Glendale Water & Power will recommend that the developer install irrigation system piping that is appropriate for recycled water usage (according to Los Angeles County Department of Health and Glendale Water Department requirements), so that the system can be converted in the future to use recycled water when it becomes available.

Existing Water Use

Table 4.13.1-1, Existing Water Demand, provides an estimate of water use by the 16-unit apartment building on the Project site. The existing surface parking lot and vacant office building do not currently generate a water demand. Total water demand generated by the existing residential use on the site is estimated at approximately 876,000 gallons per year or 2.7 acre-feet per year.

**Table 4.13.1-1
Existing Water Demand**

Use	Units (du)	Daily Demand (gallon/day) ¹	Annual Demand (gallon/year)	Annual Demand (acre-feet/year)
Apartment	16	2,400	876,000	2.7

¹ Based on 125 percent of sewage estimate.

REGULATORY FRAMEWORK

A number of regulations and ordinances regarding water supply and water use apply to the Project site and the proposed development. These regulations and ordinances are discussed below.

Glendale General Plan Policies

Goals and policies set forth by the City of Glendale in the General Plan Community Facilities Element relate to water services. A description of applicable goals and policies is provided in **Section 4.7, Land Use and Planning**. As discussed in **Section 4.7**, the Project does not conflict with any applicable General Plan goals and policies relating to water services.

Glendale Water Conservation Policies

The City of Glendale has adopted a mandatory water conservation plan. Section 13.36 of the Glendale Municipal Code describes programs the City is implementing to reduce demand for water. For example, this section of the Code contains a “no water waste” policy, which outlines prohibited uses of water such as hosing of sidewalks, walkways, driveways, or parking areas. This section also prohibits landscape irrigation between 10:00 AM and 5:00 PM, failure to repair leaks of any sort, and water fountains without a recirculating water system.⁹

All commercial and industrial customers of the Glendale Water and Power Division using 25,000 billing units per year (one unit equals 748 gallons) or more must submit a quarterly water conservation plan to the City Manager’s Office and the Director of Glendale Water and Power.

The existing reclaimed water system is only available in limited sections of the City. Where recycled water use is feasible, the City requires its use in lieu of potable water. Service connections and extensions to areas outside of this system are subject to approval by the Director of Glendale Water and Power. Recycled water facilities are required in new developments when it is determined that recycled water would be supplied in the future, regardless of whether or not the area is being served by the City’s reclaimed water system during new construction.

Urban Water Management Plans

All urban water suppliers, except for the smaller systems, are required by state law to prepare an Urban Water Management Plan (UWMP) by December 31 for years ending in “0” and “5.” This planning document provides information on how suppliers will meet current and projected water demands for the next 20 years. The suppliers are also required to discuss their demand management (water conservation) programs, including Best Management Practices (BMPs), such as recycled water use practices. The most recent UWMP was updated in 2005 and relevant information was incorporated by reference in this water supply evaluation (see, **Appendix 4.13**). The 2005 UWMP was prepared in coordination with the

⁹ City of Glendale Municipal Code, Section 13.36.060.

Regional UWMP prepared by MWD and the 2005 UWMP prepared by the City of Burbank and Pasadena Water Departments. Information from MWD's Regional UWMP and the Burbank/Pasadena 2005 UWMP was used to prepare the City of Glendale's 2005 UWMP.¹⁰

State Regulations

The Project is required to comply with Title 20 and Title 24 and of the California Code of Regulations. Title 24 contains California Building Standards, including the California Plumbing Code (Part 5) that promotes water conservation. Title 20 of the code addresses Public Utilities and Energy and includes appliance efficiency standards that promote water conservation.

Water Reliability

Reliability of water supplies is an important aspect of the 2005 UWMP. The MWD Regional UWMP also provides significant information on providing a reliable supply of water to its member agencies such as Glendale. The MWD's Water Surplus and Drought Management (WSDM) Plan is the key document in MWD's effort to do so. For the City of Glendale, MWD is the supplier of "last resort" in meeting water demand. For this reason, the WSDM Plan is summarized below.

In April of 1999, MWD's Board of Directors adopted the WSDM Plan. This WSDM Plan guides management of regional water supplies to achieve the reliability goals of Southern California's Integrated Resources Plan (IRP). Unlike MWD's previous shortage management plans, the WSDM Plan recognizes the link between surpluses and shortages, and it integrates planned operational activities with respect to both conditions. The WSDM Plan continues MWD's commitment to the regional planning approach initiated in the IRP.

The guiding principle of the WSDM Plan is to manage MWD's water resources and management programs to minimize adverse impacts of water shortages to retail customers. From this guiding principle, the following supporting principles have been developed:

- Encourage efficient water use and economical local resource programs;
- Coordinate operations with member agencies to make as much surplus water as possible available for use in dry years;
- Pursue innovative transfer and banking programs to secure more imported water for use in dry years; and

¹⁰ MWD's Regional UWMP and the Burbank/Pasadena 2005 UWMP are available for public inspection and review on MWD's website and the Burbank and Pasadena websites, respectively, and are incorporated by reference in this EIR.

- Increase public awareness about water supply issues.

The WSDM Plan also declared that, should mandatory imported water allocations be necessary, those allocations would be calculated on the basis of need, as opposed to any type of historical purchases. The WSDM Plan contains the following considerations that would affect an allocation of imported water:

- Impact on retail consumers and regional economy;
- Investments in local resources, including recycling and conservation;
- Population growth;
- Changes and/or losses in local supplies;
- Participation in MWD's non-firm (interruptible) programs; and
- Investment in MWD's facilities.

The WSDM Plan also defines five surplus management stages and seven shortage management stages to guide resource management activities. These stages are not defined merely by shortfalls in imported water supply, but also by the water balances in MWD's storage programs. Thus, a 10 percent shortfall in imported supplies could be a stage one shortage if storage levels are high. If storage levels are already depleted, the same shortfall in imported supplies could potentially be defined as a more severe shortage. Each year, MWD evaluates the level of supplies available and existing levels of water in storage to determine the appropriate management stage for that year.

When MWD must make net withdrawals from storage to meet demands, it is considered to be in a shortage condition. Under most of these stages, it is still able to meet all end-use demands for water. The following summaries describe water management actions to be taken under each of the seven shortage stages.

Shortage Stage 1	MWD may make withdrawals from Diamond Valley Lake.
Shortage Stage 2	MWD will continue Shortage Stage 1 actions and may draw from Semi tropic and Arvin-Edison groundwater storage.
Shortage Stage 3	MWD will continue Shortage Stage 2 actions and may curtail or temporarily suspend deliveries to Long Term Seasonal and Replenishment Programs in accordance with their discounted rates.
Shortage Stage 4	MWD will continue Shortage Stage 3 actions and may draw water from conjunctive use groundwater storage (i.e., the North Las Posas program) and the SWP terminal reservoirs.

- Shortage Stage 5 MWD will continue Shortage Stage 4 actions. MWD's Board of Directors may call for extraordinary conservation or market open water procedures and curtail Interim Agricultural Water Program deliveries in accordance with their discounted rates. In the event of a call for extraordinary conservation, MWD's Drought Program Officer will coordinate public information activities with member agencies and monitor the effectiveness of ongoing conservation programs.
- Shortage Stage 6 MWD will continue shortage 5 actions and may exercise water supply option contracts and/or buy water on the market either for consumptive use or for delivery to regional storage facilities.
- Shortage Stage 7 MWD will continue delivering to regional storage facilities, maintain extraordinary conservation effort, and develop a plan to allocate available supply fairly and efficiently to full-service customers. MWD will enforce these allocations using rate surcharges (\$175/acre-foot exceeding a member agency's allotment). If it exceeds 102 percent, surcharge will be equal to 3 times MWD full service charge.

In sum, there are significant planning efforts underway to minimize the impacts of drought conditions. If MWD resources fail to provide needed supplies, the City of Glendale will be requested to implement its Mandatory Conservation Plan, as discussed in the 2005 UWMP. Due to current drought, regulatory and judicial conditions, and limitations on Glendale water supply, the availability of water may be impacted in the future. MWD is currently preparing a shortage allocation plan, which is expected to be adopted by the MWD Board of Directors in November 2007. The shortage allocation plan is expected to reduce the quantity of water available to the City of Glendale. The possible range of the reduction is 5 to 30 percent. However, in an October 12, 2007 Member Agency meeting, MWD advised Glendale and other MWD agencies that they will be able to purchase additional MWD storage water, albeit at a much higher cost. MWD has also announced its intent to revise its Integrated Resource Plan (IRP) in December 2007.

The City is concurrently in the process of revising its water conservation ordinance (Chapter 13.36 of the Glendale Municipal Code). The revisions will be coordinated with the proposed MWD draft shortage allocation plan with the goal of reducing demand through stricter conservation requirements.

Glendale's water system is also interconnected with the City of Burbank and Crescenta Valley Water District for short-term/emergency water service.¹¹ When the need arises, these connections can be opened to deliver water into the Glendale distribution system to supplement demands and vice-versa. These should be viewed as only short-term transfer of water.

¹¹ Glendale Water & Power, *2005 Urban Water Management Plan*, adopted December 2005, Figure 8.

For the long term, MWD is engaged in “out-of-area” dry transfer and exchanges to improve local water supply reliability. Such programs are discussed in MWD’s Regional UWMP and summarized in Chapter 3, Section B-3 Metropolitan Water District. The City of Glendale does not have the basic capability to implement these types of programs. It relies on MWD to perform these activities.

The interconnection with Crescenta Valley Water District was recently completed. The preliminary design for an interconnection with Los Angeles has begun. Construction is expected to be completed by 2009. This schedule is mainly based on the approval of Federal Emergency Management Agency funding.

ENVIRONMENTAL IMPACTS

Methodology

Existing and future water demand calculations were based on water use factors by land use provided by Glendale Water and Power. To demonstrate how water demand resulting from implementation of the Project would be accommodated, the evaluation was based on the conceptual development program described in **Section 3.0, Project Description**.

Thresholds of Significance

The following thresholds for determining the significance of impacts related to water resources are contained in the environmental checklist contained in Appendix G of the most recent update of the *California Environmental Quality Act (CEQA) Guidelines*. Impacts related to water resources include whether the Project would:

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

Impact Analysis

Each applicable threshold of significance is listed below followed by analysis of the significance of any potential impacts and the identification of mitigation measures that would lessen or avoid potential impacts. Finally, the significance of potential impacts after implementation of all identified mitigation measures is presented.

Threshold: Have sufficient water supplies available to serve the project from existing entitlements and resources, or would need new or expanded entitlements.

Impact Analysis:

Short-Term Construction Water Demand – Demolition, grading, and construction activities associated with the Project would require the use of water for dust control and cleanup purposes. The use of water for construction purposes would be short-term in nature and low in volume. Glendale Water and Power has sufficient water supplies available to serve the site during Project construction. Impacts would be less than significant.

Long-Term Water Demand – The Project would result in an increased water demand on the site. As indicated in **Table 4.13.1-2**, water demand at Project buildout would be 6,551,750 million gallons per year, or 20.1 acre-feet per year. This amount represents a net increase of 5,675,750 million gallons per year or 17.4 acre-feet per year, over the 876,000 million gallons per year, or 2.7 acre-feet per year, demanded by the existing residential use on the Project site.

**Table 4.13.1-2
Project Water Demand**

Use	Quantity	Daily Demand (gallons/day) ¹	Annual Demand (gallons/year)	Annual Demand (acre-feet/year)
Proposed Multi-Family Residential	63 d.u.	11,350	4,142,750	12.7
Proposed Office	66,000 sq. ft.	6,600	2,409,000	7.4
Subtotal		17,950	6,551,750	20.1
Existing Multi-Family Residential	16 d.u.	(2,400)	(876,000)	(2.7)
Net Total Demand		15,550	5,675,750	17.4

¹ Based on 125 percent of sewage estimate.
d.u. = dwelling units; sq. ft. = square feet.

Normal Weather Conditions

The City of Glendale has identified an adequate supply of water to meet future City demands under normal weather conditions. As indicated in **Table 4.13.1-3**, a surplus exists that provides a reasonable buffer of approximately 3,000 to 4,000 acre-feet of water per year. Future water demands in Glendale are based on development projected in the General Plan. For purposes of this assessment, Project water demand was assumed not to have been included in this demand projection. However, even with the net addition of 17.4 acre-feet per year of demand generated by the Project, there is ample supply to meet remaining City demand under normal weather conditions.

**Table 4.13.1-3
City of Glendale Current and Projected Water Supply and Demand (acre-feet)**

	2005	2010	2015	2020	2025
Supply					
San Fernando Wells	6,466	7,625	7,625	7,625	7,625
Verdugo Wells	2,208	2,300	2,300	2,300	2,300
MWD	22,666	21,889	23,136	24,846	26,625
Recycled Water	1,298	2,010	2,030	2,050	2,050
Total Supply	32,638	33,824	35,091	36,821	38,600
Demand	29,698	30,920	32,143	33,367	34,592
Difference (Surplus)	2,940	2,904	2,948	3,454	4,008

Source: Glendale Water and Power 2005 Urban Water Management Plan, adopted December 2005, Tables II-3 and II-4.

Dry Weather Conditions

Table 4.13.1-4 provides a three-year water supply that Glendale identified under drought conditions, based upon the 2005 Glendale UWMP and the MWD Regional UWMP. Demand during the three-year drought period is 32,850 acre-feet annually.¹² Based upon the UWMP data, water supply during a three-year drought would exceed demand. If there is a need for significant demand reduction efforts, various voluntary or mandatory conservation efforts could be implemented.

Water supplies from the San Fernando and Verdugo Basins and recycled water would remain unaffected by drought conditions. MWD is currently preparing a shortage allocation plan that will affect the availability of MWD water during extreme drought conditions. The possible reduction to the City of Glendale ranges from a 5 to 30 percent reduction. In terms of actual water supply, the reduction would mean the following reduced quantity for Glendale:

5% Reduction	1,329 acre feet less
30% Reduction	7,548 acre feet less

As noted, in the October 12, 2007 MWD Member Agency meeting, MWD represented to its member agencies, including Glendale, that it would make additional storage water available for purchase at a higher rate. Therefore, if conservation measures alone do not reduce demand, then the City can purchase additional water from MWD storage. As stated previously, the City is currently revising the water

¹² Glendale Water & Power, 2005 Urban Water Management Plan, adopted December 2005, p.38.

conservation ordinance. The changes to the water conservation ordinance have not yet been adopted and are in the planning stages.

If MWD's supply remains available, it is anticipated that during a three-year drought, the City would have sufficient water supply to meet demand. If the MWD allocation to Glendale is significantly reduced, then mandatory conservation may need to be implemented to reduce demand to match available supplies. In addition to implementing mandatory conservation measures, MWD has advised its Member Agencies that they will have the ability to purchase additional water from MWD at a higher water cost. With the mandatory conservation efforts, or by purchasing storage water from MWD, the demand of this project can be met even under the most stringent, 30% reduction in MWD supply.

It should also be noted that according to the 2005 UMWP, the City would use less MWD water supplies in the future compared to its current use. With the City's reduction of dependency on imported MWD supplies, there would be a higher level of water supply reliability to meet demand during drought conditions.

Table 4.13.1-4
City of Glendale Three-Year Drought Conditions Water Supply (acre-feet)

Source	Year 1	Year 2	Year 3
San Fernando Wells	8,056	8,056	8,056
Verdugo Wells	2,438	2,438	2,438
MWD	22,790	22,790	22,790
Total Supply	34,821	34,821	34,821

Source: Glendale Water and Power, 2005 Urban Water Management Plan, December 2005, Table III-4.

As indicated above, including in **Table 4.13.1-4**, even with implementation of the Project and subject to continued availability of MWD's supply, or if the MWD supply is reduced, with the implementation of mandatory conservation or through the purchase of additional MWD water at a premium, the City would continue to have adequate supply to meet Citywide demand under drought conditions. Similar to normal weather conditions, even with the annual net increase in demand of 17.4 acre-feet per year associated with the Project, there is sufficient supply to meet City demand under drought conditions.

As indicated above, even with Project implementation, if MWD's supply remains available, the City would continue to have adequate supply to meet City-wide demand under normal and drought conditions. If MWD allocates significantly less water to Glendale in its shortage allocation plan, then mandatory conservation efforts may be required to meet demand. In addition, MWD has stated the City

could purchase additional water from MWD storage, albeit at a higher water cost. As a result, long-term impacts to water supply during operation under both normal and drought conditions would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are recommended.

Level of Significance After Mitigation: Less than significant.

Threshold: Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impact Analysis:

Existing water treatment facilities have sufficient capacity to treat the 17.4 acre-feet of water demanded annually by the Project and new treatment facilities or expansion of existing facilities would not be required. Impacts would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are recommended.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

The following cumulative analysis evaluates the impact of the Project and related projects on water services. Each applicable threshold is listed below in bold, and followed by an analysis of the cumulative impact of the Project and related projects combined.

Threshold: Have sufficient water supplies available to serve the project from existing entitlements and resources, or would need new or expanded entitlements.

Impact Analysis:

As indicated in **Table 4.13.1-5**, development of related projects would result in a demand of approximately 326 million gallons of water per year or approximately 1,001 acre-feet per year. Combined with the net demand increase of 17.4 acre-feet per year generated by the Project, the cumulative water demand would be approximately 1,018 acre-feet per year.

The City of Glendale has identified sufficient water supplies to meet water demand through General Plan buildout, which includes the related projects. As discussed previously, for purposes of this analysis, Project water demand was assumed not to have been included in this demand projection. However, even with the net Project demand of 17.4 acre-feet per year, assuming MWD supplies remain available, or through the implementation of conservation measures and/or by purchasing storage water from MWD, ample supply exists to meet the Project and related project demand. Therefore, the cumulative impact would be less than significant.

**Table 4.13.1-5
Water Demand of Related Projects**

Use	Area/Unit	Factor ¹	Daily Demand (gal./day)	Annual Demand (gal./year)	Annual Demand (acre-feet/year)
Residential	2,825 units	200 gal/unit/day	565,000	206,225,000	632.9
Retail	575,738 sq. ft.	100 gal/1000 sq. ft./day	57,574	21,014,510	64.5
Office	349,146 sq. ft.	187.5 gal/1,000 sq. ft./day	65,465	23,894,725	73.3
Hotel	1,042 rooms	162.5 gal/room/day	169,325	61,803,625	189.7
Banquet Hall	55,500 sq. ft.	100 gal/1,000 sq. ft./day	5,550	2,025,750	6.2
Cinema	3,500 seats	5 gal/seat/day	17,500	6,387,500	19.6
Medical	38,900 sq. ft.	312.5 gal/1,000 sq. ft./day	12,156	4,436,940	13.6
Industrial	5,308 sq. ft.	100 gal/1,000 sq. ft./day	531	193,815	0.6
Community Center	10,600 sq. ft.	75 gal/1,000 sq. ft./day	795	290,175	0.9
Total			893,896	326,272,040	1001.3

Source: Impact Sciences, Inc.

¹ 125 percent sewage generation loading factor

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are recommended.

Level of Significance After Mitigation: Less than significant.

Threshold: Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impact Analysis:

Existing water treatment facilities have sufficient capacity to treat water demand through General Plan buildout and new treatment facilities or expansion of existing facilities would not be required. Cumulative impacts would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are recommended.

Level of Significance After Mitigation: Less than significant.

ENVIRONMENTAL SETTING

Existing Conditions

The City of Glendale Public Works Division provides sewer collection and treatment services in the City. Sewage from the City of Glendale and other jurisdictions is treated by the City of Los Angeles Hyperion System, which includes the Los Angeles/Glendale Water Reclamation Plant, located outside the Glendale City limits in Los Angeles, and the Hyperion Treatment Plant, located in Playa del Rey.¹³ The City of Glendale and the City of Los Angeles jointly own and share operating capacity of the Los Angeles/Glendale Water Reclamation Plant. The City of Glendale has entered into an amalgamated treatment and disposal agreement (Amalgamated Agreement) with the City of Los Angeles, which eliminates entitlements and reduces limitations on the amount of sewage discharged into the Hyperion system. Any Glendale sewage not treated at the Los Angeles/Glendale Water Reclamation Plant is treated at the Hyperion Treatment Plant.

The Los Angeles/Glendale Water Reclamation Plant has a design treatment capacity of 20 million gallons per day and is currently operating below its design capacity at 17 million gallons per day.¹⁴ Glendale is currently entitled to utilize half this capacity.¹⁵ The Hyperion Treatment Plant has a dry weather design capacity of 450 million gallons per day and is currently operating below its design capacity at 360 million gallons per day.¹⁶ Glendale has access to this excess capacity upon payment of Amalgamated Sewerage System Facilities Charges to the City of Los Angeles.

Approximately 360 miles of underground sewer mains ranging in size from 8 inches to 36 inches in diameter are located throughout the City of Glendale.¹⁷ The City owns and maintains the sewer lines within its public rights-of-way. These sewer mains collect sewage and convey it to trunk lines and into regional interceptor sewers for conveyance to the Los Angeles/Glendale Water Reclamation Plant or the Hyperion Treatment Plant for treatment. The sewer system uses the rolling topography in the City of Glendale to allow gravity to convey the majority of its sewage with minimum pumping costs. Pumping of sewage is only required in the southwestern section of the City, bounded by the Arroyo Verdugo Wash and the Los Angeles River.

¹³ Glendale Water & Power, 2005 Urban Water Management Plan, adopted December 2005, p. 49.

¹⁴ Personal conversation with Raja Takidin, Glendale Water and Power, September 2006.

¹⁵ Glendale Water & Power, 2005 Urban Water Management Plan, adopted December 2005, p. 49.

¹⁶ City of Los Angeles, Bureau of Sanitation website, August 2007 <www.lacity.org/san>.

¹⁷ Glendale Water & Power, 2005 Urban Water Management Plan, adopted December 2005, p. 49.

Existing sewer lines serving the Project site include an 8-inch line in East Broadway, a 10-inch line in North Louise Street and an 8-inch line in the alley that runs between the existing office building and 16-unit apartment building to the north. Lateral lines extending from the Hollywood Production Center and proposed residential building would connect to these lines. Sewage in the area generally flows south-southwest.

City sewage generation factors were applied to estimate the amount of sewage generated by the existing 16-unit apartment building on the Project site. The existing surface parking lot and vacant office building do not generate sewage. As indicated in **Table 4.13.2-1**, current on-site sewage generation is 1,920 gallons per day.

Table 4.13.2-1
Existing Sewage Generation

Use	Units	Generation Factor (gallons/unit/day)	Daily Generation (gallons/day)
Apartment	16	120	1,920

Source: City of Glendale

REGULATORY FRAMEWORK

Goals and policies set forth by the City of Glendale in the General Plan Community Facilities Element relate to the City sewage collection and treatment system. A description of applicable goals and policies is provided in **Section 4.7, Land Use and Planning**. As discussed in **Section 4.7**, the Project does not conflict with applicable General Plan goals and policies relating to the City sewage collection and treatment system.

ENVIRONMENTAL IMPACTS

Methodology

The impact of the Project on the existing sewage collection and treatment system was determined by evaluating existing sewage treatment and sewage conveyance capacity. To perform this evaluation, estimates of both existing and future sewage amounts were calculated. The projected net increase in sewage from the Project was then compared to existing system capacity to determine if sufficient capacity would be available to serve the Project.

Thresholds of Significance

The following thresholds for determining the significance of impacts related to sewage are contained in the environmental checklist form contained in Appendix G of the most recent update of the *California Environmental Quality Act (CEQA) Guidelines*. The impact analysis addresses whether the Project would:

- Result in a determination by the wastewater treatment provider that 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.
- Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Impact Analysis

Each applicable threshold of significance is listed below followed by analysis of the significance of any potential impacts and the identification of mitigation measures that would lessen or avoid potential impacts. Finally, the significance of potential impacts after implementation of all identified mitigation measures is presented.

Threshold: **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.**

Impact Analysis:

As shown in **Table 4.13.2-2**, the Project would generate 14,360 gallons of sewage per day. This amount of sewage represents a net increase of 12,440 gallons per day over the 1,920 gallons per day generated by the existing residential use on the Project site.

Sewage generated on the Project site would be conveyed to either the Los Angeles/Glendale Water Reclamation Plant or the Hyperion Treatment Plant for treatment, as discussed above. If the Reclamation Plant is operating at full capacity, excess sewage from the site would be conveyed to the Hyperion facility for treatment, which the City has access to through the Amalgamated Agreement. With the Hyperion Treatment Plant currently operating 90 million gallons per day below capacity, the daily net addition of 12,440 gallons of sewage generated by the Project would not result in the plant exceeding capacity. Therefore, adequate capacity exists to treat the net increase in sewage generated by the Project and impacts would be less than significant.

**Table 4.13.2-2
Project Sewage Generation**

Use	Quantity	Generation Rate	Generation (gallons/day)
Proposed Multi-Family Residential	63 d.u.	120 gallons/day/ 1-bedroom; 160 gallons/day/2- bedroom	9,080
Proposed Office	66,000 sq. ft.	.08 gallons/sq. ft./day	5,280
Subtotal			14,360
Existing Multi-Family Residential	16 d.u.	120 gallons/day	(1,920)
Net Total			12,440

Source: City of Glendale

d.u. = dwelling units; sq. ft. = square feet.

Existing sewer lines serving the Project site include an 8-inch line in East Broadway, a 10-inch line in North Louise Street and an 8-inch line in the alley that runs between the existing office building and 16-unit apartment building to the north. Lateral lines extending from the Hollywood Production Center and proposed residential building would connect to these lines. Sewage generated at the Project site would be conveyed via lines in Broadway and then into a 15-inch line on Central Avenue.

In order to provide the capacity needed to accommodate additional development, the City imposes a sewer impact fee on future developments, based on a computer modeling assessment of the sewer system hydraulic capacity. The fee will be charged when development leads to an increase in the volume of wastewater discharged to the collection system. In an effort to impose the fee in an equitable manner, the City has elected to calculate these fees based on proportional increases in wastewater flow.

City methodology for assessing the fee is based on dividing the sewer system into seven drainage basins, and then determining the capital budget required to expand the capacity of each basin over the next 20 years, and the corresponding future peak flow for each basin. The Project would increase flows within the Colorado Flume, which has a capital improvement budget of \$11,667,400, and projected future flows of 11.10 million gallons per day. As stated above, the Project is expected to create a net increase to the sewer system of 12,440 gallons per day. This amount is multiplied by a 2.5 peak-flow factor, which determines the percentage of the total future flow for which the Project will be required to mitigate. Based on the City's methodology, a \$20,287 capital mitigation fee would be assessed to the Project.

The collected fees, which are charged for each proposed development, are deposited into a specially created account to be used to fund capacity improvements of the specific drainage basin. The City will

undertake a new hydraulic analysis of the specific drainage basin every five years from the date of the first deposit into the special account. In the event the City receives proposals for new developments not considered in the current hydraulic analysis, intermediate and more frequent hydraulic analyses will be performed to evaluate capacity in the given drainage basin. The Public Works Director will request the City Council budget the funds for the balance of the cost of increasing the sewer capacity for any of the drainage basins, as part of its annual Capital Improvement Program when it determines such action to be appropriate and justifiable. The City's Public Works Engineering Department will then design and construct the necessary improvements. Since the payment of this fee is available to reduce the severity of the impact of the Project on sewer capacity, the impact of the Project on the existing sewage conveyance system would be reduced to less than significant.

Level of Significance Before Mitigation: Significant.

Mitigation Measure:

4.13-1 The Project applicant shall pay a sewer impact fee for improvements and upgrades to the Colorado Flume area to alleviate sewer impacts. The fee as estimated under the City's methodology would be \$20,287. These collected fees will be deposited by the City of Glendale into a specially created account to be used to fund the capacity improvements to the Colorado Flume drainage basin. The City's Public Works Engineering Department will then design and construct the necessary improvements.

Level of Significance After Mitigation: Less than significant.

Threshold: 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.

Impact Analysis:

As discussed above, when the Los Angeles/Glendale Water Reclamation facility reaches capacity, the Hyperion Treatment Plant to which the City has access through the Amalgamated Agreement, would treat any excess waste generated by the Project. With the Hyperion Treatment Plant currently operating 90 million gallons per day below capacity, adequate capacity exists to treat Project-generated wastewater. Therefore, the Project would not require the expansion or construction of sewage treatment facilities, the construction of which could cause significant environmental effects. Impacts with regard to available sewage treatment capacity would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are recommended.

Level of Significance After Mitigation: Less than significant.

Threshold: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Impact Analysis: The Los Angeles/Glendale Water Reclamation Plant and the Hyperion Treatment Plant are both subject to permits issued by the Regional Water Quality Control Board. The Los Angeles/Glendale Water Reclamation Plant is subject to two permits, a National Pollution Discharge Elimination System (NPDES) Permit (Order No. 98-047), regulating the discharge of treated sewage from the Plant to the Los Angeles River, and a Reclamation Permit (Order 97-07211), regulating the distribution of reclaimed water for irrigation and industrial uses in the Cities of Los Angeles and Glendale. In addition, the Hyperion Treatment Plant is also subject to a NPDES Permit (Order No. R4-2005-0020), regulating the discharge of treated sewage into the Santa Monica Bay.¹⁸

The permits that regulate the Los Angeles/Glendale Water Reclamation Plant and the Hyperion Treatment Plant set limitations on the amount of pollutants that the plants can discharge into receiving waters or the amount of pollutants allowable to remain in reclaimed water for municipal use. An increase in the amount of sewage treated at these plants could result in the plants not being able to meet pollutant standards outlined in their respective permits.

As discussed above, sewage generated by development in Glendale will be treated at both the Los Angeles/Glendale Water Reclamation Plant and the Hyperion Treatment Plant. When capacity is reached at the Los Angeles/Glendale Water Reclamation Plant, sewage will be diverted toward the Hyperion facility, which the City has access to through the amalgamated agreement. Given that the Hyperion Treatment Plant is currently operating 90 million gallons per day below capacity, additional sewage generated by the Project will not result in the plant exceeding sewage treatment requirements. Consequently, each plant will operate within the limitations contained in its respective permit. Therefore, the impact of the Project on sewage treatment requirements is less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are recommended.

Level of Significance After Mitigation: Less than significant.

¹⁸ Los Angeles Regional Water Quality Control Board website, March 2006, <www.swrcb.ca.gov/rwqcb4>.

Cumulative Impacts

The following cumulative analysis evaluates the impact of the Project and related projects on sewage in the City of Glendale. Each applicable threshold is listed below in bold, and is followed by an analysis of the cumulative impact of the Project and related projects.

Threshold: **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.**

Impact Analysis:

As shown in **Table 4.13.2-3**, development of related projects would add 715,117 gallons per day to the Hyperion Treatment Plant and the City's sewage conveyance system. Combined with the net increase of 12,440 gallons per day generated by the Project, the cumulative demand of the Project and related projects will be 727,557 gallons per day.

Table 4.13.2-3
Sewage Generation by Related Projects

Use	Units	Area (square feet)	Loading Factor ¹	Daily Generation (gallons/day)
Residential	2,825	--	160 gal/unit/day	452,000
Retail	--	575,738	80 gal/1000 square feet/day	46,059
Office	--	349,146	150 gal/1000 square feet/day	52,372
Hotel	1,042	--	130 gal/room/day	135,460
Banquet Hall		55,500	80 gal/1000 square feet/day	4,440
Cinema	--	3,500 seats	4 gal/seat/day	14,000
Medical	--	38,900	250 gal/1000 square feet/day	9,725
Industrial		5,308	80 gal/1000 square feet/day	425
Community Center		10,600	60 gal/1000 square feet/day	636
Total				715,117

Source: Impact Sciences, Inc.

¹ City of Los Angeles, Bureau of Sanitation Sewage Generation Factors.

As discussed above, when the Los Angeles/Glendale Reclamation Plant reaches capacity, the Hyperion Treatment Plant will treat a majority of the waste generated by the Project and related projects. With the Hyperion Treatment Plant currently operating 90 million gallons per day below capacity, the additional 727,557 gallons, or 0.73 million gallons, of sewage per day generated by cumulative development would not result in exceeding plant capacity. With excess capacity available to the City upon payment of fees to the City of Los Angeles, adequate capacity exists to treat sewage generated by the Project and related

projects. Therefore, the cumulative impact of the Project and related projects on available sewage treatment capacity is less than significant.

In order to provide the capacity needed to accommodate additional development, the City imposes a sewer impact fee on future developments, based on a computer modeling assessment of the sewer system hydraulic capacity. The fee will be charged when development leads to an increase in the volume of wastewater discharged to the collection system and will apply to all related projects approved after the institution of the fee in September 2007. The collected fees will be deposited into a specially created account to be used to fund capacity improvements of the specific drainage basin. The City will undertake a new hydraulic analysis of the specific drainage basin every five years from the date of the first deposit into the special account. In the event the City receives proposals for new developments not considered in the current hydraulic analysis, intermediate and more frequent hydraulic analyses will be performed to evaluate capacity in the given drainage basin. The Public Works Director will request the City Council budget the funds for the balance of the cost of increasing the sewer capacity for any of the drainage basins, as part of its annual Capital Improvement Program when it determines such action to be appropriate and justifiable. The Glendale Public Works Engineering Department will then design and construct the necessary improvements. Since the payment of the fee is available to reduce the severity of the impact of the Project and related project's on sewer capacity, cumulative impacts to the existing sewage conveyance system would be reduced to less than significant.

Level of Significance Before Mitigation: Significant.

Mitigation Measures:

4.13-2 Each new development project proposed within Glendale that increases the volume of wastewater discharged into the collection system shall contribute sewer impact fees for improvements and upgrades to alleviate sewer impacts within the specific drainage basin where the particular cumulative project is located. Fees would be determined based on the City sewer impact fee methodology. These collected fees would be deposited into a specially created account to be used to fund capacity improvements of the specific drainage basin. The Glendale Public Works Engineering Department will then design and construct the necessary improvements.

Level of Significance After Mitigation: Less than significant.

Threshold: 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.

Impact Analysis:

As discussed above, when the Los Angeles/Glendale Water Reclamation Plant reaches capacity, the Hyperion Treatment Plant, which the City of Glendale has access to through the Amalgamated Agreement, will treat a majority of the waste generated by the Project and related projects. With the Hyperion Treatment Plant currently operating 90 million gallons a day below capacity, adequate capacity exists to treat effluent generated by cumulative development. Therefore, the Project and related projects will not require the expansion or construction of sewage treatment facilities, the construction of which could cause significant environmental effects. The cumulative impact of the Project and related projects is less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are recommended.

Level of Significance After Mitigation: Less than significant.

Threshold: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Impact Analysis:

As discussed previously, both the Los Angeles/Glendale Water Reclamation Plant and the Hyperion Treatment Plant are subject to permits issued by the Regional Water Quality Control Board. Sewage generated by development in Glendale will be treated at both the Los Angeles/Glendale Water Reclamation Plant and the Hyperion Treatment Plant. When capacity is reached at the Los Angeles/Glendale Water Reclamation Plant, sewage is redirected toward the Hyperion facility, which the City has access to through the Amalgamated Agreement. Given that the Hyperion Treatment Plant is currently operating 90 million gallons per day below capacity, additional sewage generated by the Project and sewage generated by related projects would not result in the plant exceeding sewage treatment requirements. Consequently, each plant would operate within the limitations contained in its respective permit. Therefore, the cumulative impact of the Project and related projects on the ability of each plant to meet applicable treatment requirements is less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are recommended.

Level of Significance After Mitigation: Less than significant.

ENVIRONMENTAL SETTING

Existing Conditions

Regional Facilities

Over 250 private waste haulers and several City governments collect solid waste in Los Angeles County. The majority of the waste is disposed of at various landfills within the County. However, some of the waste is delivered to waste-to-energy transformation facilities or to inter-modal facilities for transport to facilities outside of Los Angeles County.

Within Los Angeles County there are two primary classifications of land use disposal facilities: Class III landfills and Unclassified (Inert) landfills. Class III landfills accept all types of non-hazardous solid waste. Major Class III facilities are permitted to receive 250,000 tons or more of waste per year and minor facilities are permitted to receive less than 250,000 tons per year. Unclassified landfills accept only inert waste, including soil, concrete, asphalt, and other construction and demolition debris, as defined by California Code of Regulations, Title 23, Section 2554. **Figure 4.13.3-1** shows major and minor Class III, Unclassified (Inert), and Transformation Facilities in Los Angeles County.

The Los Angeles County Integrated Waste Management Plan 2004 Annual Report, prepared by the Los Angeles County Department of Public Works, indicates that residents and businesses in Los Angeles County disposed of approximately 11.4 million tons of solid waste in landfills in and out of Los Angeles County and at waste-to-energy facilities in 2004. Of this amount, about 9.1 million tons (79.8 percent) were disposed of at Class III landfills within Los Angeles County; about 0.1 million tons (0.9 percent) were exported to out-of-County Class III landfills; about 1.6 million tons (14.0 percent) were disposed of in Unclassified (Inert) landfills; and about 600,000 tons (5.3 percent) were disposed of at waste-to-energy facilities.¹⁹

The estimated remaining capacity of permitted Class III landfills at the end of 2004 in Los Angeles County was approximately 102.9 million tons.²⁰ Based on the 2004 average disposal rate of 29,595 tons per day (6 days a week), excluding waste being imported to the County, remaining capacity at local permitted Class III landfills will be at capacity in approximately 67 years. However, ultimate landfill capacity will be determined by several factors including: (1) expiration of various permits (e.g., Land Use

¹⁹ County of Los Angeles Department of Public Works, *Los Angeles County Integrated Waste Management Plan 2004 Annual Report – Part II: Siting Element Assessment*, February 2006, Appendix E-2.1.

²⁰ *Ibid.*

Permits, Waste Discharge Requirements Permits, Solid Waste Facilities Permits, and air quality permits); (2) restrictions to accepting waste generated only within a landfill's particular jurisdiction and/or watershed boundary; and (3) operational constraints.

The capacities of Unclassified (Inert) landfills are affected by the same factors, but they are not affected to the same extent. The total estimated remaining capacity of unclassified landfills at the end of 2003 in Los Angeles County was approximately 69.9 million tons.²¹ Based on a 2003 average disposal rate of 3,721 tons of inert waste per day (6 days per week), there is remaining capacity for approximately 58 years.

Local Facilities

In 1989, residential and non-residential uses in Glendale disposed of approximately 345,000 tons of solid waste.²² By 2005, residents and businesses reduced the amount of disposed solid waste by approximately 36 percent to about 220,700 tons per year.²³ Similar to the disposal patterns Countywide, the decline can be attributed primarily to waste diversion programs, including waste reduction, recycling, and composting.

As shown in **Table 4.13.3-1**, residential and non-residential uses generated approximately 45 percent and 55 percent of disposed solid waste generated in the City of Glendale, respectively.²⁴ In order of waste volume handled, private individual companies hauled a majority of the waste, followed by the City of Glendale Public Works Division, and then numerous self-haulers.

**Table 4.13.3-1
Waste Disposal Tonnage by Hauler and Source**

	Residential	Non-Residential	Total Tons (%)
Glendale Public Works	35,347	43,201	78,548 (35.3%)
Private Haulers	37,104	45,350	82,454 (37.0%)
Self-Haul Vehicles	27,779	27,779	61,732 (27.7%)
Total	100,230	122,504	222,734
Percent of Total	45%	55%	100%

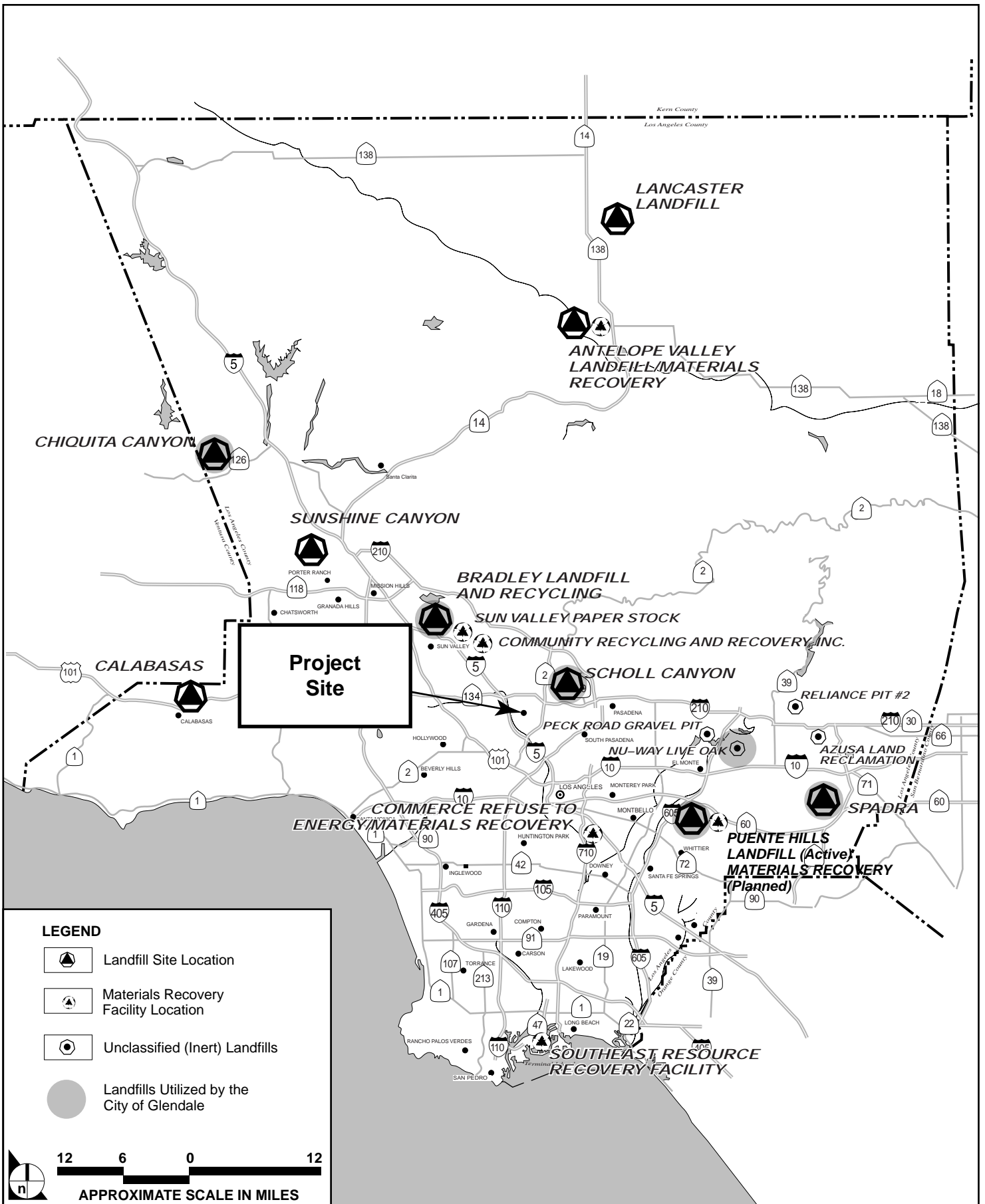
Source: City of Glendale Public Works Division, Integrated Waste Management Section, 2006

²¹ Ibid.

²² City of Glendale, Source Reduction and Recycling Element, June 1991, ES-2.

²³ Written correspondence from Tom Brady, Senior Integrated Waste Planner, Glendale Public Works Division, Integrated Waste Management Section, June 2006.

²⁴ Ibid.



SOURCE: Impact Sciences, Inc. – October 2007

FIGURE 4.13.3-1

Location of Existing Disposal Sites in Los Angeles County

As shown in **Table 4.13.3-2**, five facilities received the majority of the City's solid waste disposal. Approximately 92 percent of the waste generated was disposed of in Class III landfills, while approximately 8 percent of the waste generated was disposed of at Nu-Way Live Oak Unclassified (Inert) landfill.²⁵

Table 4.10.3-2
Distribution of City of Glendale Solid Waste to Landfills

Landfill	Location	Type	Quantity Disposed (Tons)	Percentage of Solid Waste Disposed
Scholl Canyon	Glendale	Class III	175,736	77.6%
Puente Hills	Unincorporated LA County	Class III	35,428	15.6%
Sunshine Canyon	Unincorporated LA County	Class III	11,528	5.1%
Chiquita Canyon	Unincorporated LA County	Class III	2,380	1.0%
Nu-Way Live Oak	Irwindale	Unclassified (Inert)	(16,973)	NA
Other			1,617	0.7%
Total Disposal			226,689	100.0%

Source: City of Glendale, February 2007.

Table 4.13.3-3 provides the annual disposal quantity, annual capacity, remaining capacity, and permit status for the six landfills that received the majority of the City's waste. As shown in **Table 4.13.3-3**, the combined remaining capacity of the five landfills is approximately 65 million tons.²⁶ The Bradley Landfill West and West Extension received 1.3 percent of the solid waste produced by the City of Glendale in 2006, and has ceased operation as of June 1, 2007.²⁷

Over three-fourths (77.6%) of the total waste generated in the City is disposed of at the Scholl Canyon Landfill, which is located at 3100 Scholl Canyon Road.²⁸ This site consists of 530 acres of which Los Angeles County owns 25 acres, Southern California Edison owns 30 acres, and the remaining 475 acres are owned by the City of Glendale. According to Glendale Municipal Code Chapter 8.56, only solid waste generated by residential and non-residential uses in the Scholl Canyon Wasteshed can be disposed at the Scholl Canyon Facility. The Project site is within the Scholl Canyon Wasteshed, which includes the entire City of Glendale. Approximately two-thirds, or about 297,000 tons, of the solid waste disposed of

²⁵ Ibid.

²⁶ Ibid.

²⁷ California Integrated Waste Management Board, Facility Site/Search [Online] Retrieved October 17, 2007. <<http://www.ciwmb.ca.gov/SWIS/detail.asp?PG=DET&SITESCH=19-AR-0008&OUT=HTML>>

²⁸ Ibid.

at the Scholl Canyon landfill comes from outside sources. This landfill had a remaining permitted capacity of 6.73 million tons or an estimated remaining life of approximately 15 years. The City could have access, if needed, to all the remaining capacity of the landfill by no longer accepting solid waste from other jurisdictions. Additionally, the School Canyon Landfill has proposed an expansion of disposal capacity, which is currently undergoing environmental review. The two primary expansion options include a vertical and horizontal/vertical expansion which would increase capacity by 5 million and 6 million tons, respectively. These expansion scenarios would provide capacity to serve the City for 12 and 15 years, respectively.

**Table 4.13.3-3
Disposal Capacities of Primary Landfills Serving the City of Glendale**

Landfill Site	Location	Annual Permitted Capacity (million tons)	Annual Disposal (million tons)	Remaining Permitted Capacity (million tons)	Remaining Capacity (Years)
Scholl Canyon	Glendale	1.06	0.46	6.73	15.0
Puente Hills	Near City of Industry	4.12	3.87	31.3	7.5
Sunshine Canyon	Valencia	1.88	1.81	6.1	3.4
Chiquita Canyon	Valencia	2.06	1.55	15.7	10.1
Nu-Way Live Oak	Irwindale	1.88	0.79	4.5	5.7
Total Remaining Capacity				64.33	

Source: City of Glendale

Another local facility that the City owns is the Brand Park Landfill, which is located at 1601 West Mountain Street in Glendale. This Unclassified (Inert) landfill has historically been limited in use to City work crews and has not been open to the public. The Brand Park Landfill is currently in the process of being converted into a inert material recycling facility and when complete, will not provide for disposal. The remaining permitted capacity of the landfill was approximately 700,000 tons for an estimated remaining life of approximately 27 years.²⁹ The annual disposal rate at the Brand Park Facility is currently zero since all inert waste has been stockpiled for recycling. The City currently stockpiles an average of 10,500 tons of inert material annually at the Brand Park Landfill for crushing, grinding and mixing to create an equal among of certified Crushed Miscellaneous Base (CMB). The CMB is reused in City roads and various other grading and backfilling projects. These activities are applied toward recycling and diversion credits under AB 939.

²⁹ Ibid (Based on an annual permitted capacity of 26,000 tons).

Project Site Generation

Solid waste generated on site is currently collected by private haulers and disposed of at the Scholl Canyon Landfill. The amount of solid waste generated by the existing 16-unit apartment building on the Project site was estimated using Solid Waste Generation factors provided by the California Integrated Waste Management Board. The existing surface parking lot and vacant office building do not generate solid waste. As indicated in **Table 4.13.3-4**, it is estimated that the existing 16-unit apartment building generates approximately 6 tons of waste per year in landfills.

**Table 4.13.3-4
Existing Solid Waste Generation**

Land Use	Generation Rate ¹	Waste Generated (lb/day)	Waste Generated (ton/year)	Waste Material Diverted ² (ton/year)	Waste Disposed in Landfill (ton/year)
Existing Multi-Family Residential – 16 d.u.	4 lb/du/day	64	12	6	6

¹ Factor obtained from California Integrated Waste Management Board Estimated Solid Waste Generation Rates for Commercial and Residential Establishments.

² Based on City 2005 waste diversion rate of 52 percent.
d.u. = dwelling unit

REGULATORY FRAMEWORK

California Integrated Waste Management Act

As many of the landfills in the state are approaching capacity and the siting of new landfills becomes increasingly difficult, the need for source reduction, recycling, and composting has become readily apparent. In response to this increasing solid waste problem, in September 1989 the California State Assembly passed Assembly Bill 989, known as the California Integrated Waste Management Act. This statute emphasizes conservation of natural resources through the reduction, recycling, and reuse of solid waste. Assembly Bill 989 required cities and counties in the state to divert 25 percent of their solid waste stream from landfills by 1995 and 50 percent by year 2000, or face potential fines of millions of dollars per year.

The California Integrated Waste Management Act also requires that all cities conduct a Solid Waste Generation Study and prepare a Source Reduction Recycling Element. The City of Glendale prepared a Solid Waste Generation Study in 1990 that established 1989 baseline for use in measuring diversion required under Assembly Bill 939. The study measured current and projected quantities of waste that

will be generated, disposed, and diverted from disposal in the City of Glendale. The City also prepared a Source Reduction Recycling Element in 1991 to describe how it has attained the diversion goals established by Assembly Bill 939 through source reduction, recycling, and composting. The following describes each of the Source Reduction Recycling Element's components.

Source Reduction

The City identified five programs to reduce waste at the source: (1) in-house local government programs, such as purchasing preferences and specifications for durable and reusable products, waste evaluation and employee education, increased use of electronic mail, and low-maintenance landscaping, etc.; (2) encouraging source reduction in the private sector through technical assistance, business evaluation, education, and promoting backyard and institutional composting; (3) use of recycled materials that would require waste reduction planning through the business license process and ban of products that cannot be recycled or reused; (4) rate structure modifications; and (5) economic incentives to encourage waste reduction.

Recycling

Recycling programs include: (1) development of materials recovery facilities; (2) continuation and expansion of commercial recycling activities; (3) development of a municipal buy-back center and drop-off center; (4) expansion of the Civic Center office paper recycling program; (5) increasing the frequency of the curbside recycling program; and (6) implementation of a salvaging program at Scholl Canyon for white goods (e.g., paper), metals, and woods.

Composting

The City has developed its own yard waste composting facility, which will potentially involve neighboring cities. The City is also investigating the feasibility of composting mixed solid waste. The City currently has an active backyard composting effort underway. City collected yard trimmings are not composted but are ground and used as alternative daily cover at the Scholl Canyon Landfill.

Local Regulations

Sections 30.48.190 and 30.64.120 of the Glendale Municipal Code provide the minimum requirements for trash collection areas to be developed in conjunction with any new project in the Central Business District.

ENVIRONMENTAL IMPACTS

Methodology

Solid waste generation resulting from construction of the Project was estimated based on demolition volumes and was compared to available landfill capacity. Solid waste generation associated with the Project after buildout was estimated using California Integrated Waste Management Board factors, determined by land use type. The estimated existing solid waste generation was subtracted from the estimated amount of solid waste generated for the Project to determine the net increase of solid waste that would be generated by the Project. The net increase associated with the Project after buildout was then compared to landfill capacity in order to evaluate potential impacts on solid waste disposal capacity.

Thresholds of Significance

The following thresholds for determining the significance of impacts related to solid waste are contained in the environmental checklist form contained in Appendix G of the most recent update of the *California Environmental Quality Act (CEQA) Guidelines*.

- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
- Comply with federal, state, and local statutes and regulations related to solid waste.

Impact Analysis

Each applicable threshold of significance is listed below followed by analysis of the significance of any potential impacts and the identification of mitigation measures that would lessen or avoid potential impacts. Finally, the significance of potential impacts after implementation of all identified mitigation measures is presented.

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

Impact Analysis:

Construction – Project construction would generate waste materials. A majority of the construction waste would be readily recyclable, such as wood, concrete, metals, and soil. This material will be collected on site in accordance with the City's Construction and Demolition Debris Recycling Ordinance and sent to commercial facilities located in Los Angeles County. Therefore, the impact of waste generated during Project construction would be less than significant.

Operation – Project implementation would result in an increase in both residential and office development on-site. **Table 4.13.3-5** provides the projected net amount of solid waste that would be generated by the Project after buildout. As shown, a total of 45 tons of solid waste per year is projected to be disposed of into landfills. This represents an increase of 39 tons per year when compared with the estimated 6 tons per year currently generated on the Project site.

**Table 4.13.3-5
Project Solid Waste Generation**

Land Use	Generation Rate ¹	Waste Generated (lb/day)	Waste Generated (ton/year)	Waste Material Diverted ² (ton/year)	Waste Disposed in Landfill (ton/year)
Proposed Multi-Family Residential – 63 d.u.	4 lb/du/day	252	46	24	22
Proposed Office – 66,000 sq. ft.	0.005 lb/sq ft/day	333	61	32	29
Subtotal		585	107	56	51
Existing Multi-Family Residential – 16 d.u.	4 lb/du/day	(64)	(12)	(6)	(6)
Net Total		521	95	50	45

¹ Factor obtained from California Integrated Waste Management Board Estimated Solid Waste Generation Rates for Commercial and Residential Establishments.

² Based on City 2005 waste diversion rate of 52 percent.
d.u. = dwelling unit; sq. ft. = square feet.

All solid waste generated on the Project site would be deposited at the Scholl Canyon Landfill, which is owned by the City. As indicated in **Table 4.13.3-3**, the current annual disposal rate at the Scholl Canyon facility is 460,000 tons per year. Combined with the increase attributable to the Project, the annual disposal amount would increase to 460,045 tons per year. With a total annual disposal amount of 460,053 tons, and a remaining 6.73-million-ton capacity, the Scholl Canyon facility could meet the needs of the City and the Project for approximately 15 years. The Project would be required to implement a waste diversion program aimed at reducing the amount of solid waste disposed in the landfill. Examples of waste diversion efforts include recycling programs for cardboard boxes, paper, aluminum cans, and bottles through the provision of recycling areas within garbage disposal areas.

If Glendale was required to dispose of waste currently being diverted to landfills outside of the City at any time in the future, the Scholl Canyon facility would still have sufficient capacity to serve the City and the Project site. As indicated in **Table 4.10.3-2**, approximately 72,000 tons per year of waste generated annually in Glendale is presently being disposed of at five other Los Angeles County landfills. If the

amount diverted from the City was combined with the amount currently disposed of in the Scholl Canyon Facility and the amount generated by the Project, the annual disposal amount would increase to 532,045 tons per year. With a new annual disposal amount of 532,045 tons per year, the Scholl Canyon facility could meet the entire demand of the City and the Project for approximately 15 years.

The Scholl Canyon facility would have sufficient capacity to continue to accommodate the demand for Class III disposal facilities generated by the Project site. Therefore, the increase in solid waste generation associated with the operation of the Project would not exacerbate landfill capacity shortages in the region to the point of altering the projected timeline of any landfill to reach capacity. Therefore, the impact of the Project on permitted landfill capacity is less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are recommended.

Level of Significance After Mitigation: Less than significant.

Threshold: Comply with federal, state, and local statutes and regulations related to solid waste.

Impact Analysis:

As part of the Project, the applicant would implement a waste diversion program in an effort help the City meet its waste diversion goal of 50 percent as mandated by Assembly Bill 939. In addition, the Project would enclose trash collection areas. No federal statutes apply to the Project. Therefore, the impact of the Project on compliance with federal, state, and local statutes and regulations is less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are recommended.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

The following cumulative analysis evaluates the impact of the Project and related projects as defined in **Section 4.0, Environmental Impacts**, on solid waste in the City. Each applicable threshold is listed below in bold, and it is followed by an analysis of the cumulative impact of the Project and related projects.

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

Impact Analysis:

As shown in **Table 4.13.3-6**, development of related projects would dispose of a projected 4,196 tons of solid waste into landfills every year. Combined with the net annual increase in solid waste generated by the Project, the cumulative amount generated by new projects would be approximately 4,241 tons of solid waste per year.

**Table 4.13.3-6
Projected Solid Waste Generation of Related Projects (annual tons)**

Land Use	Generation Rate (lb/du/day or lb/sq ft/day)	Waste Generated (lb/day)	Waste Generated (tons/year)	Waste Material Diverted (tons/year)	Waste Disposed of in Landfill (tons/year)
Residential – 2,825 dwelling units	4	11,300	2,062	1,072	990
Retail – 575,738 square feet	0.046	26,484	4,833	2,513	2,320
Office – 349,146 square feet	0.006	2,095	765	398	367
Hotel – 1,042 dwelling units	2	2,084	380	198	182
Banquet – 55,500 square feet	0.005	278	51	27	24
Cinema – 70,000 square feet	0.046	3,220	588	306	282
Medical – 38,900 square feet	0.006	233	43	22	21
Industrial – 5,308 square feet	0.006	32	6	3	3
Community Center – 10,600 square feet	0.007	74	14	7	7
Total:		45,800	8,742	4,546	4,196

Source Impact Sciences, Inc.

The current capacity of the Scholl Canyon and Puente Hills Landfills, which receive over 90 percent of City waste, are adequate to accommodate solid waste disposal needs of the Project, and development of all related projects, for at least 15 years, if not longer. The City also utilizes four additional landfills, all of which are currently still accepting materials.

The Scholl Canyon and Puente Hills Landfills are a part of the County Sanitation Districts of Los Angeles County (CSDLAC). The CSDLAC provides solid waste management for over half the population in Los Angeles County. CSDLAC's service area covers approximately 800 square miles and encompasses unincorporated County territory, as well as 78 cities, including Glendale. CSDLAC operates a comprehensive solid waste management system, which includes landfills, recycling centers, transfer/materials recovery facilities, and gas-to-energy facilities.

Although there is insufficient permitted disposal capacity within the existing system serving Los Angeles County to provide for its long-term disposal needs, there is additional capacity potentially available within Los Angeles County through the expansion of local landfills, and outside of Los Angeles County through the use of a regional waste-by-rail system and remote landfills. As currently proposed by CSDLAC, this regional system would utilize disposal capacity at the proposed Eagle Mountain Landfill (EML) in Riverside County and the Mesquite Regional Landfill (MRL) in Imperial County.

Toward that end, CSDLAC entered into Purchase and Sale Agreements in August 2000, on these two landfills, which are the only two fully permitted rail haul landfills in California. CSDLAC closed escrow on the MRL in December 2002, and is currently in the planning and development process for that landfill. Due in part to pending federal litigation, CSDLAC has not been able to close escrow on the purchase of the EML.

CSDLAC intends to utilize a regional waste-by-rail system to transport municipal solid waste approximately 210 miles to MRL, via the Union Pacific Railroad main line, which extends from the Metropolitan Los Angeles to Glamis, California. From Glamis, a 4.5-mile dedicated rail spur would be built to the site. Closing escrow on the MRL has allowed work to begin on a comprehensive master plan for the development of the site, including the landfill and rail infrastructure. Work on this project is currently ongoing and scheduled to be finished in late 2008. Following completion of the master plan, CSDLAC intends to pursue concurrent final design and construction of the facilities necessary to begin operation. The MRL is scheduled to open for receipt of refuse in 2009.

There is insufficient permitted disposal capacity within the existing system serving Los Angeles County to provide for its long-term disposal needs. Although the CSDLAC is in the process of increasing the capacity to accommodate future increases in solid waste volumes, these improvements are not yet in place and will not be completed until at least 2009. As such, the cumulative impact of the Project and related projects on the Project, in combination with other development, could contribute to insufficient permitted disposal capacity by contributing additional solid waste to regional landfills. Project development would also contribute construction debris to regional landfills, increasing the cumulative effect. Therefore, the Project's contribution to the cumulative impact would be considered cumulatively considerable, and would be a significant and unavoidable impact.

Level of Significance: Significant.

Mitigation Measures: No feasible mitigation exists.

Level of Significance After Mitigation: Significant and unavoidable.

Threshold: Comply with federal, state, and local statutes and regulations related to solid waste.

Impact Analysis:

As with the Project, related projects would be required to implement waste diversion programs in an effort to help the City meet its goal of reducing the amount of solid waste generated by 50 percent. In addition, related projects are also required to comply with applicable municipal codes. As a result, the cumulative impact of the Project and related projects regarding compliance with applicable state and local solid waste statutes and regulations is less than significant.

Level of Significance: Less than significant.

Mitigation Measures: No mitigation measures are recommended.

Level of Significance After Mitigation: Less than significant.