K. UTILITIES AND SERVICE SYSTEMS

1. WASTEWATER

Existing Conditions

On-Site Generation

Currently the Proposed Project site is partially built-out with a mix of land uses including a 42-unit apartment complex, 29,400 square feet of retail, a 652-seat theater and two surface parking lots with 554 spaces. Using City of Los Angeles wastewater generation rates for the existing land uses, these existing uses generate approximately 11,680 gallons per day (GPD) of wastewater as shown in Table V.K1-1. Infrastructure and treatment facilities serving the proposed site allocate a percentage of the capacity to the existing land uses.

Table V.K1-1

Sewer Consumption Potential from Existing Structures [a]

Land Use	Consumption Rate (Gallons per Unit)[b]	Total Water Consumed (Gallons per Day)
Theater (652 seats)	4/seat	2,608
Retail (29,400 s.f.)	80/1,000 sf	2,352
Apartment (42 units)	160/unit	6,720
	Total	11,680

(a) Although existing facilities are predominately vacant, this table calculates water consumption already allocated to development that existed at the time of the NOP.

(b) Source: LA CEQA Thresholds Guide (1998, Exhibit K.2-11).

Infrastructure

Three local wastewater infrastructure lines located in the area around the Proposed Project could potentially serve the site. These include an eight-inch line in Glendon Avenue, another eight-inch line in Tiverton Avenue, and a ten-inch line in the alley west of Glendon Avenue (**Figure V.K1-1**). The line in the alley west of Glendon Avenue currently conveys wastewater from commercial development on the eastside of Westwood Boulevard from Le Conte Avenue to Lindbrook Drive, a UCLA parking structure, and the Westwood Marketplace (former Macy's department store) north of Weyburn. The line running under Tiverton Avenue conveys wastewater from the westside of Tiverton between Le Conte and Weyburn. This line also serves the residential building on the northwest corner of Tiverton and Weyburn, as well as properties on Tiverton between Weyburn and Lindbrook. The eight-inch line running under Glendon Avenue currently provides service to properties on Glendon between Weyburn and Lindbrook. The capacity of the wastewater lines that would serve the Proposed Project is listed in **Table V.K1-2.**

Figure V.K1-1 Sewer Lines

Table V.K1-2
Existing Wastewater Infrastructure Capacity Serving the Site

Wastewater Line	Half-Full Capacity
Alley west of Glendon (10-inch @ 1.8% slope)	1.47 cfs
Glendon Avenue (8-inch @ 2.0% slope)	0.86 cfs
Tiverton Avenue (8-inch @ 4.0% slope)	1.21 cfs

Wastewater flows through these lines down to the 18-inch and 24-inch City of Los Angeles trunk lines located under Lindbrook Avenue. The trunk sewers transport wastewater toward the Hyperion Treatment Plant, in Playa Del Rey.

Treatment Facilities

The HTP currently provides wastewater treatment for nearly all of the entire City of Los Angeles, as well as several contract cities including Santa Monica, Beverly Hills, Burbank, Culver City, El Segundo, Glendale, San Fernando and portions of Los Angeles County. Completed in 1950, the Hyperion Treatment Plant was originally designed with a treatment capacity of 320 million GPD. Since that time, the plant's capacity to provide full secondary treatment has been increased to 450 MGD. Current waste operations treat approximately 360 MGD to an acceptable level of primary and secondary treatment standards. Peak wet weather flows up to 1,000 MGD can be handled for short periods.

Treated wastewater is discharged by a 5-mile outfall pipe into the Pacific Ocean on a daily basis. The Hyperion Treatment Plant (HTP) also has a one-mile outfall pipe that is used only in emergency situations, and a seven-mile outfall pipe that is no longer maintained. Solids generated from the treatment process are not pumped through the outfall pipe, but instead are managed on land through a variety of methods.

Threshold of Significance

The LA CEQA Thresholds Guide states that a proposed project would result in a significant impact if:

- The project would cause a measurable increase in the 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; 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.

Project Impact

Based on the proposed land uses, the Proposed Project would result in a generation of 68,500 GPD. Development of the Proposed Project would include the removal of all existing land uses prior to construction. The reduction in wastewater generation from the elimination of existing land uses will be subtracted from the Proposed Project contribution as a means of accurately calculating the net increase from the Proposed Project. Existing land uses to be removed are responsible for a producing 11,680 GPD. Therefore, the Proposed Project will result in a total net increase of 56,820 GPD

(approximately 0.088 cfs). **Table V.K1-3** delineates the source of net contributions from the Proposed Project.

Table V.K1-3

Proposed Project Sewage Generation

USE	Generation Rate (GPD)[a]	Sewage Generation (GPD)
Retail (46,000 sf)	80/1,000 SF.	3,680
Restaurant (15,000 sf)	300/1,000 SF.	4,500
Supermarket (54,000 sf)	80/1,000 SF.	4,320
Apartment (350 units)	160/Unit	56,000
	New Development	68,500
	Potential from Existing Structures	*11,680*
	Total Net Increase	**56,820**

[a] Source: LA CEQA Thresholds Guide (1998, Exhibit K.2-11).

Generation of 56,820 GPD of wastewater from the Proposed Project would represent 0.0158 percent of the 360 million gallons per day currently treated by the HTP. The Project land uses are consistent with uses allowed on the Project site by the Westwood Specific Plan. Therefore, the Project's incremental increase in materials is within the expected development to be served. Additionally, the Project will comply with the City's water conservation and sewer allocation ordinances. Therefore, based on the Proposed Project's consistency with planned land use and with City ordinances and regulations, the potential impacts from the Proposed Project with regard to wastewater treatment would be less than significant.

The City of Los Angeles Bureau of Sanitation prepared a Sewer Availability Report (November 14, 2000) that analyzed infrastructure in the area of the Proposed Project to determine wastewater drainage capacity. The existing wastewater infrastructure that would serve the Proposed Project was determined to have excess capacity available. The Bureau of Sanitation then determined that the Project would receive a finding of "Capacity Available" for the land uses proposed. This determination is derived from estimated flows from the Project site, the tributary upstream users and downstream users between the Proposed Project and the trunk sewer system.

Mitigation Measures

Impacts related to the Proposed Project are anticipated to be less than significant. Nevertheless, incorporation of the following mitigation measures would further lessen any potential impacts:

1. The Project shall implement all water-conserving mitigation measures outlined in the Water Section of this Environmental Impact Report.
2. Prior to Project development, a flow test of downstream sewer lines shall be conducted to determine if existing sewer lines serving the Project site still have adequate capacity to serve the Project. If any improvements to the local sewage collection lines are required, the Applicant and the City shall determine the Applicant's reasonable pro rata share of the cost for sewer system improvements.

Significant Project Impact After Mitigation

Project impacts are less than significant.

Cumulative Impact

Related projects would generate an estimated 823,279 gallons of wastewater daily (See **Table V.K1-4**). Adding the Proposed Project would result in a total generation of 880,099 GPD of wastewater. Given that related projects must comply with the City's water conservation policies and would be subject to review for adequate sewer capacity, cumulative impacts to the wastewater treatment systems would be considered less than significant.

Table V.K1-4

Wastewater Generation from Related Projects

Use	Generation Rate (GPD) (a)	Wastewater Generation (GPD)
93 Condominiums	160/Unit	14,880
187 Condominiums	160/Unit	29,920
36,641 S.F. Office	150/1,000 S.F.	5,496
2,074 S.F. Auto Service	800/1,000 S.F.	1,659
50 Room Motel	130/Unit	6,500
70,000 S.F. Office	150/1,000 S.F.	10,500
1,140 S.F. Retail	80/1,000 S.F.	91
771,000 S.F. Studio	80/1,000 S.F.	61,680
25,000 S.F. Office	150/1,000 S.F.	3,750
874,000 S.F. Office	150/1,000 S.F.	131,100
20,043 S.F. Office	150/1,000 S.F.	3,006
400- Space Garage 6,000 S.F. Retail	80/1,000 S.F.	480
330,000 S.F. Office	150/1,000 S.F.	49,500
76,125 sf Retail/Restaurant	80/1,000 S.F.	6,090
60,470 S.F. Gymnasium Staging Building	250/1,000 S.F.	15,118
296 unit Campus Housing **(b)**	160/du	47,360
75,000 Staging Building	20/1,000 S.F.	1,500
1,000 unit Campus Hsng. + Prkg. **(b)**	160/Unit	160,000
Intramural Field Parking	NA	NA
101,900 S.F. Physics and Astronomy	150/1000 S.F.	15,285
95,000 S.F. Luck Research Center	150/1000 S.F.	14,250
3,600 S.F. Theater (144 seats)	4/seat	576
1,600,000 S.F. University Expansion	150/1,000 S.F.	240,000
2,000 S.F. Office	150/1,000 S.F.	300
42,223 S.F. Retail/Restaurant	80/1,000 S.F.	3,378
336 movie theater seats	4/seat	1,344
-12,300 S.F. Retail	80/1,000 S.F.	-484
	Cumulative Demand	823,279
	Project Demand	*56,820*
	Project Plus Cumulative Demand	**880,099**

(a) Source: LA CEQA Thresholds Guide (1998, Exhibit K.2-11).
(b) Assumes 2 bedrooms per dwelling unit.

2. STORMWATER

Existing Conditions

The majority of the Proposed Project site is currently paved over and developed with parking lots and existing structures. Most of the surfaces on the site are impermeable, except for a landscaped area that surrounds the existing Glendon Manor apartment building, totaling approximately 5,000 square feet. Stormwater runoff from the Project site generally drains from north to south. Tiverton Avenue on the east side of the property is located along a local ridge and acts as a drainage divide for storm water runoff. The Project area is served by a series of storm drains as shown in **Figure V.K2-1**. The property drains to the south through Weyburn Avenue into a catch basin at the southeast side of the corner of Weyburn and Glendon Avenue. Flows from the catch basin are conveyed through a 15-inch line in Weyburn to a 30-inch reinforced concrete pipe in Westwood Boulevard, west of the site. Both Tiverton Avenue and Glendon Avenue drain to the south into a catch basin in Lindbrook Drive. Stormwater runoff from Tiverton runs down to Lindbrook, where it is diverted westward through a 48-inch drain with a maximum capacity of 130 cfs. The west side of Glendon Avenue drains to Kinross and is diverted to a catch basin on Kinross at Westwood Boulevard.

Currently, stormwater runoff is drained from the site via three catch basins. Existing site runoff and additional downstream flows would contribute 9.2 cfs to the Kinross Catch Basin at Westwood Boulevard, 10.2 cfs to the Glendon Catch Basin at Lindbrook Drive, and 8.3 cfs to the Tiverton Catch Basin at Lindbrook Drive.[1]

Urban run-off within the City of Los Angeles is diverted to the appropriate storm drainpipe and the nearest catch basin. The collected storm water flows through a network of pipes and open channels and is then released directly into the Pacific Ocean, specifically, Santa Monica and San Pedro Bays.

Stormwater discharges are regulated by the National Pollution Discharge Elimination System (NPDES). Stormwater permits are issued by the governing agency under the Federal Water Pollution Control Act commonly referred to as the Clean Water Act. NPDES permits for "non-point" discharge sources that transmit stormwater into various storm drain infrastructure such as gutters, catch basins, and pipes. As part of the permitting process, NPDES also requires the preparation of a site-specific Stormwater Pollution Prevention Plan (SWPPP) prior to construction. The purpose of the SWPPP is to identify potential pollution sources and receptors associated with site development, and to prepare a plan to mitigate and control the pollutants during the pre-construction, construction, and post-construction stages of development.

An NPDES permit will be required for this site. However, sites less than five acres do not require a General Construction Activity Stormwater Permit (GCASP). The total Proposed Project site area under consideration is 4.97 acres, which includes 4.25 acres of privately owned property and 0.72 acres for the subsurface vacation of Glendon Avenue; therefore, a GCASP is not required. A SWPPP must be prepared, which is site specific, as described above.

Threshold of Significance

The LA CEQA Thresholds Guide significance threshold for surface water hydrology is applicable, as it pertains to the Project stormwater system. The threshold components are as follows:

[1] Source: Draft Environmental Impact Report EIR. No. 89-825-SUB [CUB] [VAC], October 1991.

Figure V.K2-1 Storm Drains

The proposed project would normally have a significant impact on surface water hydrology if it would:

- Cause flooding during the 50-year developed storm even which would have the potential to harm people or damage property or sensitive biological resources;
- Substantially reduce or increase the amount of surface water in a water body; or
- Result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow.

In addition, to further define the threshold relevant to this Project, the following consideration is added:

The Proposed Project would result in a significant impact if it:

- Generates a demand for storm drain facilities that cannot be adequately accommodated by existing or planned facilities; or

The Guide further adds significance thresholds for water quality, which is relevant to the Project stormwater system, as follows:

A project would normally have a significant impact on surface water quality if:

- Discharges associated with the project would create pollution, contamination or nuisance as defined in Section 13050 of the California Water Code (CWC) or that would cause regulatory standards to be violated as defined in the applicable NPDES stormwater permit or Water Quality Control Plan for the receiving water body.

Construction Impacts

The Proposed Project site is less than five acres, and therefore does not require a GCASP. However, a SWPPP is required to address all of the construction-related impacts from the Proposed Project. Potential impacts would be mitigated through the use of Best Management Practices (BMPs). According to the City of Los Angles Bureau of Engineering, compliance with the SWPPP would mitigate short-term impacts to a less than significant level.

There are two major sources of storm water pollution that can occur during the construction phase of a Project. The first source is materials found on the construction site that contain pollutants transported through runoff. Pollutants can be found in the following construction-related materials including: adhesives, cleaning agents, landscaping materials, plumbing materials, paint, heating/cooling machinery, masonry materials, floor and wall coverings, demolition debris, construction equipment vehicles and maintenance supplies. Proper handling and storage of such materials will effectively mitigate any potential impacts to a less than significant level.

The second major source of storm water pollution during construction is sedimentation. Grading activities during the construction process can expose soils that are more susceptible to erosion. BMPs from the SWPPP should be designed to limit the amount of sediment entering the storm drain system, controlling runoff so that sediment is captured before the stormwater leaves the site and enters the storm drain system. Implementation of the appropriate BMPs and compliance with the SWPP would reduce construction related storm water pollution impacts to a less than significant level. BMPs for the Proposed Project are listed as mitigation in this section.

Operational Impacts

The Proposed Project site is currently covered with impermeable surfaces, including parking lots and structures. All storm water on the Project site is conveyed to the storm drain system through the gutters of the buildings and sheet flow over the parking lot surface. Since the majority of the site is currently covered with impermeable surface, development of the Proposed Project will not result in additional flows. Implementation of BMPs that address drainage design considerations for the Proposed Project will reduce flows by diverting runoff into landscaped areas, and away from paved surfaces. The use of permeable ground surfaces and grading landscaped areas to retain water will help minimize the amount of runoff.

The Proposed Project will not generate storm water run-off in excess of the existing conditions of the site. The majority of the run-off from the Proposed Project will be from rooftop drainage, sidewalks, driveways and other impermeable surface drainage, which will flow through existing municipal storm drain facilities. The existing 5,000 square feet of permeable surface area surrounding the Glendon Manor apartment building will be replaced by a 15-foot landscape buffer along the entire easterly portion of the site along Tiverton Avenue, totaling approximately 5,000 square feet of new landscape area**.** Based on the proposed site plan and the existing storm drain facilities, the existing facilities will adequately serve the Proposed Project.

To reduce the surge of runoff entering the storm drain system at the start of a storm, and to improve runoff water quality by slowing and filtering the flow, projects are required to implement stormwater BMPs that retain or treat the runoff from a storm event producing 3/4 inch of rainfall in a 24-hour period. The Project runoff collection and conveyance system will be designed to accommodate this requirement. The BMPs will be consistent with all City and LA Regional Water Quality Control Board requirements.

Stormwater retention will be accomplished by the use of an on-site, below grade, detention basin of sufficient capacity to meet City requirements. The basin will include a discharge system designed to meet City discharge standards into the local stromwater drainage system. These measures will effectively decrease the current peak flow runoff rate from the site to within required standards.

Mitigation Measures

Mandatory NPDES requirements must be incorporated into the Project. These design features are listed below for clarification.

1. The Project shall comply with NPDES requirements for a storm water drain permit along with the preparation of a Storm Water Pollution Prevention Plan (SWPPP), Standard Urban Stormwater Mitigation Plan (SUSMP), approved by the Los Angeles Regional Water Quality Act and other applicable filings prior to construction.
2. The Project Applicant will be required to implement stormwater BMPs to retain the runoff from a storm events producing 3/4 inch of rainfall in a 24-hour period. The design of structural BMPs shall be in accordance with the Development BMP Handbook, Part B, and Planning Activities. A signed certificate from a California licensed civil engineer or licensed architect that the proposed BMPs meet this numerical threshold standard is required.
3. The on-site drainage system shall be designed to assimilate the existing on-site tributary area of each of the three catch basins: 1) at the southeast corner of Weyburn Avenue and Glendon Avenue, 2) on the west side of Tiverton at Lindbrook and the east side of Glendon at Lindbrook, and 3) on Kinross at Westwood Boulevard.
4. All site drainage shall be collected and transferred to the street in non-erosive drainage devices.

5. All storm drain inlets and catch basins within the Project area must be stenciled with prohibitive language (such as "NO DUMPING – DRAINS TO OCEAN") and/or graphical icons to discourage illegal dumping.
6. Store trash dumpsters either under cover and with drains routed to the sanitary sewer or use non-leaking and water tight dumpsters with lids. Wash containers in an area with properly connected sanitary sewer.
7. Drainage shall not be allowed to pond anywhere on the site, and especially not against any foundation or retaining wall.
8. Drainage shall not be allowed to flow uncontrolled over any descending slope.
9. The Applicant and/or developer shall implement routine safety precautions for handling and storing toxic and hazardous construction materials to mitigate the potential pollution of storm water by these materials. These same types of common sense, "good housekeeping" procedures shall be extended to non-hazardous storm water pollutants such as sawdust and other solid wastes.
10. Cleaning of oily vents and equipment to be performed within designated covered area, sloped for wash water collection, and with a pretreatment facility for wash water before discharging to properly connected sanitary sewer with a CPI type oil/water separator. The separator unit must be: designed to handle the quantity of flows; removed for replaced regularly according to manufacturer's specifications.
11. During construction, drainage of the Project site shall be disposed of in a manner satisfactory to the City Engineer and the Regional Water Quality Control Board.
12. The owner(s) of the property will prepare and execute a covenant and agreement (Planning Department General form CP-6770) satisfactory to the Planning Department binding the owners to post construction maintenance on the structural BMPs in accordance with the Standard Urban Stormwater Mitigation Plan and or per manufacturer's instructions.

Significant Project Impacts After Mitigation

No unavoidable adverse impacts with regard to stormwater are anticipated to result from development and operation of the Proposed Project. Implementation of identified mitigation measures, BMPs, and compliance with NPDES regulations would further reduce any Project-related impacts to stormwater drainage.

Cumulative Impacts

Development of projects included in the cumulative project list will not contribute additional runoff to the existing storm drainage system. All of the properties are currently covered with impermeable surfaces, conveying almost all runoff into the storm drains. Therefore, the cumulative increase in runoff from these projects is minimal and is not anticipated to cause downstream flooding. In addition, the cumulative projects would be replacing older buildings that may be in violation of NPDES standards, with new structures that would be required to comply with NPDES stormwater quality discharge requirements. Due to the extent of impermeable surface area, the cumulative increase in runoff is minimal and not expected to affect the stromwater drainage system capacity. Runoff would be cleaner, due to NPDES compliance. Therefore, cumulative impacts associated with stormwater drainage from the proposed site, as well as those associated with related projects, are expected to be less than significant.

3. Water Supply

Existing Conditions

Water Supply

The Los Angeles Department of Water and Power (LADWP) currently supplies water to the Proposed Project site. The LADWP acquires its water supply from three sources including; the Los Angeles Aqueduct (LAA), the Metropolitan Water District of Southern California (MWD) and local ground water.[2]. The LAA has supplied the LADWP with approximately 50 percent of the City's water over the last ten years. The MWD has provided the City with 35 percent and local groundwater accounted for 15 percent of the total water supplied. Water delivered by the MWD comes from the Colorado River and Northern California's Bay-Delta. The City is entitled to 110,000 AF per year from local groundwater supplies from the San Fernando Basin (SFB), Central, Sylmar and West Coast groundwater basins. About 80 percent of the local groundwater supplied to the City of Los Angeles is provided by SFB.

Los Angeles Aqueduct

The LAA is an important water resource for the LADWP due to its ability to provide the highest quality water at the lowest cost. Historic provision of water from the Mono Basin and Owens Valley has resulted in degradation of the natural environment. Consequently, the amount of water delivered from these sources will be reduced in order to protect the environment. The reduction in flows from the Mono Basin will be used to raise the level of Mono Lake. Other projects will include mitigating air quality problems in Owens Lake and re-watering a 60-mile stretch of the Owens River for a warm-water fishery. The LAA is expected to provide approximately 321,000 AF per year or 50 percent of the City's average year water supply for the next 20 years. LADWP continues to search and improve LAA supplies.

Metropolitan Water District of Southern California

The MWD is a State chartered association of Southern California water agencies responsible for supplying supplemental water needs to the entire region. The MWD has provided water to the City for nearly 60 years, and will continue to be a primary provider into the future. The LADWP expects that by the year 2020, MWD will provide the City with approximately 300,000 AF per year, or 38 percent of the City's normal water needs, and possibly as much as 60 percent in drought years. Currently, the MWD is developing a strategic plan for the equitable distribution of water in Southern California to ensure the ability to meet increasing demands. This plan will focus on guidelines for water shortage allocation and alterations to the rate structure for agencies seeking allocation using MWD facilities. The City and the MWD are also working together to find ways to ensure the reliability of resources through plans aimed at MWD sources.

The California Colorado River Water Use Plan is a strategy that the MWD is attempting to finalize that would entitle California to 4.4 million AF per year. Currently the MWD delivers approximately 1.25 million AF per year from the Colorado River Aqueduct.

The CalFed Bay-Delta Program is a cooperative inter-agency group that is attempting to provide solutions for ecosystem problems in San Francisco Bay and the Sacramento-San Joaquin River Delta. In addition to their environmental efforts, the CalFed Bay-Delta Program is working to increase the reliability of supply from the State Water Project and better the quality of the water.

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[2] Sources: The Los Angeles Department of Water and Power, Urban Water Management Plan Annual Update 2001 and 2000. The City of Los Angeles Water Services Water Supply Fact Sheet, www.ladwp.com/water/supply/facts

Local Wells

The LADWP relies upon local groundwater entitlements to provide a steady source of supply. The City holds water rights in four groundwater basins. The upper Los Angeles River Area Watermaster manages water from SFB and Sylmar Basins. The State Department of Water Resources manages the Central and West Coast Basins. Local wells are an important source of water that help to limit the amount of water imported by the LAA and the MWD.

Recycled Water

Development of recycled water programs will be a beneficial source of water to the LADWP, that will one day provide a significant amount of water for non-potable uses. The LADWP is working to develop a water-recycling program capable of offsetting 74,000 AF per year of potable water

Citywide Water Usage

Water from the three primary sources mentioned above is dispersed throughout the City providing water to an array of land uses. For fiscal year 2001, 36 percent of all water used in the City was consumed by single-family residential homes. The remaining usage was consumed by multi-family residential (29 percent), commercial (17 percent), governmental (six percent), industrial (three percent) and unaccounted usage (nine percent). This proportioning of the water supply has changed less than one percent over the last ten years, and is assumed to continue into the future.

Despite conservation efforts to reduce the amount of water used each year, increasing population within the City creates the need for an increasing water supply. By the year 2020, water use within the City is expected to grow from 665,695 AF per year (2001) to 800,000 AF per year. The LAA and the local groundwater sources would supply the majority of water to the DWP. The MWD is expected to have adequate resources to fulfill the additional demand.

Water Infrastructure

In the area around the Proposed Project there are several domestic water infrastructure lines providing water to the many urban uses. In the immediate vicinity of the Proposed Project there is a six-inch line in Weyburn Avenue, an eight-inch in Tiverton Avenue, an eight-inch line in Glendon Avenue through the Project site to Kinross Avenue and Lindbrook Drive, an eight-inch line in Kinross Avenue and two six-inch lines and a 36-inch line, all in Westwood Boulevard. **Figure V.K3-1** shows the location of domestic water infrastructure that would serve the Proposed Project.

Existing Consumption

Currently the Proposed Project site is partially built-out with a mix of land uses including a 42-unit apartment complex, 29,400 square feet of retail, a 652-seat theater and two surface parking lots with 554 spaces. Using City of Los Angeles generation rates, the existing land uses consume approximately 11,680 GPD (GPD) of water as shown in **Table V.K3-1**. A percentage of the existing supply and infrastructure capacity serving the area around the proposed site is allocated to the existing land uses. Development of the Proposed Project would include the removal of all existing land uses prior to construction. The consumption of water from existing land uses will be subtracted from the Proposed Project contribution as a means of accurately calculating the net increase from the Proposed Project.

Figure V.K3-1 Domestic Water Lines

Table V.K3-1

Water Consumption Potential from Existing Structures [a]

Land Use	Consumption Rate (Gallons per Unit)[b]	Total Water Consumed (Gallons per Day)
Theater (652 seats)	4/seat	2,608
Retail (29,400 s.f.)	80/1,000sf	2,352
Apartment (42 units)	160/unit	6,720
	Total	11,680

(a) Although existing facilities are predominately vacant, this table calculates water consumption already allocated to development that existed at the time of the NOP.

(b) Source: LA CEQA Thresholds Guide (1998, Exhibit K.2-11).

Threshold of Significance

The LA CEQA Thresholds Guide sates that the determination of the significance of project water supply impacts shall be made on a case-by-case basis, considering the following factors:

- The total estimated water demand for the project;
- Whether sufficient capacity exists in the water infrastructure that would serve the project, taking into account the anticipated conditions at project buildout;
- The amount by which the project would cause the projected growth in population, housing or employment for the Community Plan area to be exceeded in the year of project completion; and
- The degree to which scheduled water infrastructure improvements or project design features would reduce or offset service impacts.

Based upon this guidance, the Proposed Project would be significant if it could not be accommodated by exiting or planned water supply infrastructure or capacity to be in place at Project buildout.

Project Impacts

Water consumption rates for land uses included in the Proposed Project have been provided by City of Los Angeles Bureau of Sanitation, in a Sewer Availability Report prepared November 14, 2000[3]. (For projects in the City of Los Angeles, it is assumed that generation rates for wastewater are equal to water consumption rates.) Based on generation rates within this report, water consumption from the Proposed Project would be 68,500 GPD. As noted, the existing land uses would consume approximately 11,680 GPD. Therefore, the Proposed Project would result in a net increase in water consumption of 56,820 GPD. Calculation of the net increase in water consumption and associated generation rates are shown in **Table V.K3-2**.

[3] Note: The generation rates used in the Sewer Availability Report are the same as those shown in Exhibit K.2-11 of the City of Los Angeles CEQA Thresholds Guide.

Table V.K3-2
Proposed Project Water Consumption

Use	Generation Rate (GPD)	Water Consumption (GPD)
Residential Apartment (350 Units)	160/unit	56,000
Retail (46,000 sf)	80/1000 sf	3,680
Restaurant (15,000 sf)	300/1,000 sf	4,500
Supermarket (54,000 sf)	80/1000 sf	4,320
	New Development	68,500
	Potential from Existing Development	*11,680*
	Net Increase	**56,820 GPD**

Source: Generation Rates per City of Los Angeles Bureau of Sanitation "Sewer Availability Report", November 14, 2000.

The net increase in water consumption would not result in a significant impact on water supply or infrastructure providing water for potable uses.

However, infrastructure in the area of the Proposed Project is not adequate to provide required fire flows as determined by the Los Angeles Fire Department (LAFD). The deficient infrastructure capacity for the Westwood Village area is a result of the cumulative impact of existing projects in a developed urban area. The Proposed Project would not be the sole cause of impact. To obtain adequate fire flows, infrastructure enlargement would be necessary, a main would need to be replaced and an increase in the capacity of an existing pressure regulator station would be required. The six-inch line running through Weyburn Avenue would need to be increased to an eight-inch line between Glendon and Tiverton, and a new private eight-inch waterline would be provided within Glendon Avenue for fire hydrant connections. Therefore, the Applicant of the Proposed Project would be responsible for a fair share portion of the cost to replace the water main in Wilshire Boulevard and enlarging the pressure regulator station. With the expansion of existing infrastructure to meet the needs of the Proposed Project and other projects in Westwood Village, the LAFD would attain the required fire flows and the LADWP would be able to provide water service in accordance with the Department's Rules and Regulations.

As part of the parking component of the Proposed Project, the Applicant is seeking a revocable encroachment permit and subsurface vacation under Glendon Avenue. The LADWP has already capped all of their utilities that lie within Glendon Avenue. Construction activities would not disrupt the provision of water services during the construction of the underground facilities, and would therefore not result in a significant impact on water services.

The existing infrastructure that would serve the Proposed Project is adequate to provide domestic water for the proposed uses. However, existing infrastructure is not adequate to provide fire flows as required by the LAFD due to a cumulative impact from development in the Westwood Village. The impact on fire flows from the Proposed Project would be reduced to a less than significant impact through expansion of the necessary infrastructure prior to Projet completion, with the Applicant responsible for their fair share. In addition, the Proposed Project is within the LADWP's projected demand and would not contribute to a significant impact with respect to regional or local water supply. Implementation of the mitigation measures pertaining to water

conservation would further reduce anticipated water consumption resulting in a less than significant impact with respect to the provision of water.

However, a shared cost amongst related projects shall be used to pay for major improvements that will serve more than one project.

Proposed and existing water supplies provided to the DWP are more than adequate to meet the projected needs of the City. Increase in demand from projects within the City has been projected and planned for accordingly. With the implementation of the City's water conservation measures, cumulative impacts would be considered less than significant.

Buildout of the Westwood Village area has generated a cumulative impact on water infrastructure for the provision of adequate fire flow according to the LAFD. Improvements to the local infrastructure may be required to serve the related projects, and should be evaluated on a project-by-project basis. However, a shared cost amongst related projects should be used to pay for major improvements that will serve more than one project. (See Section V.H1 Fire Protection regarding fire hydrant requirements/funding.) With individual project mitigation, as needed, will reduce cumulative impacts to a less than significant level.

Mitigation Measures

Although Project impacts are less than significant, the following mitigation measures are included to further reduce impacts.

1. The Proposed Project shall use automatic sprinkler systems for landscape irrigation, which are adjusted on a seasonal basis to operate during hours where water loss due to evaporation would be minimized. If feasible, sprinkler systems with rain sensors will be utilized to avoid automatic watering during rains.
2. Where possible, reclaimed water shall be used to irrigate landscaped areas.
3. The Proposed Project shall comply with all sections of the City of Los Angeles' Water Conservation Ordinance (Ordinance No. 166,080) and Xeriscape Ordinance, as applicable.
4. The Proposed Project shall use lower-volume water faucets and water saving showerheads in all construction.
5 The Proposed Project shall use plumbing fixtures that reduce potential water loss from leakage due to excessive wear of washers.
6. Prior to obtaining building permits for the Proposed Project, the Applicant shall be responsible for fees imposed by the City's Building and Safety Department for improvements to water infrastructure necessitated by the Proposed Project. A percentage of the building permit fees will be contributed to the Fire Hydrant Fund which pools funds for Citywide fire protection facilities improvements.
7. The Applicant shall be responsible for a fair share portion of the cost to replace the water main in Wilshire Boulevard to enlarge the pressure regulator station.
8. The Proposed Project shall incorporate water conservation measures as appropriate and required by the City of Los Angeles Department of Building Ordinances (No. 163,532, No. 164,093, and No. 165,004) and subsequent amendments, which include the installation of low-flow water fixtures and xeriscape.
9. The Applicant shall comply with any additional mandatory water use restrictions imposed as required by the City of Los Angeles.

Significant Project Impacts After Mitigation

Project impacts are not significant.

Cumulative Impact

Implementation of all projects within the related project list would result in the consumption of approximately 823,279 GPD. Calculation of this number is shown in **Table V.K3-3**. The addition of the Proposed Project would bring the daily water consumption to 880,099 GPD. Proposed and existing water supplies provided to the DWP are considered more than adequate to meet the projected needs of the City. Increase in demand from projects within the City has been projected and planned for accordingly. With the implementation of the City's water conservation measures, cumulative impacts would be considered less than significant.

Buildout of the Westwood Village area has generated a cumulative impact on water infrastructure for the provision of adequate fire flow according to the LAFD. Improvements to the local infrastructure may be required to serve the related projects, and should be evaluated on a project-by-project basis. Although cumulative impacts could be significant, they are expected to be mitigated on a project-by-project fair share basis.

Table V.K3-3
Daily Water Consumption from Related Projects

Use	Consumption Rate (GPD)	Water Consumption (GPD)
93 Condominiums	160/Unit	14,880
187 Condominiums	160/Unit	29,920
36,641 S.F. Office	150/1,000 S.F.	5,496
2,074 S.F. Auto Service	800/1,000 S.F.	1,659
50 Room Motel	130/Unit	6,500
70,000 S.F. Office	150/1,000 S.F.	10,500
1,140 S.F. Retail	80/1,000 S.F.	91
771,000 S.F. Studio	80/1,000 S.F.	61,680
25,000 S.F. Office	150/1,000 S.F.	3,750
874,000 S.F. Office	150/1,000 S.F.	131,100
20,043 S.F. Office	150/1,000 S.F.	3,006
400- Space Garage	80/1,000 S.F.	480
6,000 S.F. Retail		
330,000 S.F. Office	150/1,000 S.F.	49,500
76,125 Retail/Restaurant	80/1000 S.F.	6,090
60,470 S.F. Gymnasium Staging Building	250/1,000 S.F.	15,118
296 unit Campus Housing **(a)**	160/Unit	47,360
75,000 Staging Building	20/1,000 S.F.	1,500
1,000 unit Campus Hsng & Prkg. **(a)**	160/Unit	160,000
Intramural Field Parking	NA	NA
101,900 S.F. Physics and Astronomy	150/1000 S.F.	15,285
95,000 S.F. Luck Research Center	150/1000 S.F.	14,250
3,600 S.F. Theatre **(b)**	4/seat	576
1,600,000 S.F. University Expansion	150/1,000 S.F.	240,000
336 movie theater seats	4/seat.	1,344
-12,300 S.F. Retail	80/1,000	-484
2,000 S.F. Office	150/1,000 S.F.	300
42,223 S.F. Retail/Restaurant		3,378
	Cumulative Demand	823,279
	Project Demand	*56,820*
	Project Plus Cumulative Demand	**880,099**

[a] Assumes 2 bedrooms per dwelling unit.
[b] Assumes 1 seat per 25 square feet of theatre.

4. SOLID WASTE

Existing Conditions

Everyday, approximately 5,200 tons of solid waste are generated by residential and commercial uses within the City of Los Angeles. The collection and disposal of the City's solid waste is a major undertaking that includes City efforts as well as approximately 80 private contractors collecting residential waste, and over 100 contractors collecting commercial waste. The City of Los Angeles Bureau of Sanitation collects the majority of residential rubbish from single-family residences and some of the smaller multi-family residences; private collectors collect a small portion. Most commercial developments are served by private collectors and a small portion by the Bureau of Sanitation.

Collected materials are channeled to one of 12 major permitted Class III landfills, six minor Class III landfills, two unclassified landfills and two transformation facilities. The transfer stations are used to temporarily store materials until they can be loaded onto larger vehicles and transported directly to the landfills. Of the available facilities, refuse from the Proposed Project would be taken to; Bradley West, Calabasas, Commerce Refuse to Energy Facility or the Southeast Resource Recovery Facility.

Land set aside for landfills is rapidly being filled due to the large quantities of waste produced each day. In an effort to preserve landfill capacity, several restrictions that limit the disposal of waste have been imposed. Amongst these are: restrictions accepting waste generated only within a jurisdictional area, tonnage permit limitations, operational constraints, and corporate objectives of the landfill owners and operators. In addition, expansions of existing landfills, and new landfills, are periodically proposed.

In September 1989, the State approved the California Integrated Waste Management Act, known as AB 939. AB 939 requires that all cities and counties in the State must utilize source reduction, recycling and composting to divert 25 percent of solid waste from reaching the landfills by 1995, and 50 percent by the year 2000. Under this bill, cities and counties are required to generate a Source Reduction and Recycling Element that details the methodology behind the diversion of solid waste. Jurisdictions that do not comply with the mandate are subject to monetary penalties. The Act also established the California Integrated Waste Management Board (CIWMB) as the agency responsible for enforcing the mandates.

As a result of AB 939, the City of Los Angeles prepared a Solid Waste Management Policy Plan (CiSWMPP) that was adopted in 1994. The CiSWMPP is a description of the City's long-term (30-year) plan to reduce the volume of waste entering the landfills, and includes goals objectives and policies dealing with solid waste management. The plan also provides direction for necessary revisions to the City of Los Angeles General Plan and Infrastructure Element. As a result, City implementation programs are successfully reducing the amount of waste requiring disposal.

The existing land uses located on the Proposed Project site currently generate 445 pounds of solid waste per day. A breakdown of the land uses that contribute to existing solid waste generation is shown in **Table V.K4-1**.

Table V.K4-1
Potential Solid Waste Generation from Existing Structures[(a)]

Land Use	Generation Rate (Lbs.)	Total Solid Waste Generated (Lbs./Day)
Theater (652 seats)	0.2/seat	130
Retail (29,400 s.f.)	5/1,000 s.f.	147
Apartment (42 units)	10/unit	420
	Total	**697**

Source: Average Solid Waste Generation Rates, City of Los Angeles, April 1987.
[(a)] Although existing facilities are currently vacant, this table calculates waste generation already "entitled" by development that existed at the time of the NOP.

Threshold of Significance

The LA CEQA Thresholds Guide states that the determination of significance shall be made on a case by case basis considering the following factors:

- Amount of projected waste generation, diversion and disposal during demolition, construction and operation of the project, considering the project 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
- Whether the project conflicts with solid waste policies and objectives in the SRRE or its updates, 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.

Based upon an evaluation of the LA CEQA Thresholds Guide factors, the Proposed Project would result in a significant impact to solid waste management if: it would require new systems or supplies for, or substantial alterations to solid waste disposal, inconsistent with CiSWMPP, which represents City policy on solid waste.

Project Impacts

Construction Impacts

The Proposed Project would generate solid waste during the construction phase and the operational phase. During the construction phase, the remaining structures would be demolished to make room for the Proposed Project, resulting in the need to dispose of 9,500 cubic yards of demolition debris. Additionally, 330,000 cubic yards of earth material would be excavated for the foundation of the proposed building and underground parking. Earth materials removed from the Project site would be used as fill for other projects in the area, or disposed of at a landfill. A licensed hazardous waste disposal expert would dispose of all hazardous materials (i.e. asbestos) in accordance with applicable regulations (per SCAQMD Rules and Regulations). The Applicant will implement recycling practices during the construction phase of the Project to decrease the amount of solid waste sent to area landfills. Further, the impact during construction is temporary, and will not extend for the life of the Project. Considering the magnitude of waste generated during the construction process

and the limited duration of impact, the Project will generate an adverse, but less than significant impact on solid waste facilities.

Operational Impacts

Based on generation rates provided by the Los Angeles Bureau of Sanitation, the Proposed Project would create approximately 4,090 pounds of solid waste per day. **Table V.K4-2** shows a breakdown of waste generated per land use. The Proposed Project would have a net increase of 3,393 after subtracting the amount of waste from existing uses to be removed. The net contribution of solid waste from the Proposed Project represents 0.033 percent of all solid waste generated in the City of Los Angeles**.** It is anticipated that there would be adequate landfill capacity to serve the Project, and would therefore not result in a significant impact.

Table V.K4-2

Proposed Project Solid Waste Generation

Land Use	Generation Rate (Lbs.)	Solid Waste Generation (Lbs./Day)
Residential	10/Unit	3,500
Commercial	5/1,000 sf	230
Supermarket	5/1,000 sf	270
Restaurant	6/1,000 sf	90
	New Development	4,090
	Potential from Existing Structures	*697*
	Total Net Increase	**3,393**

Because we do not know the collector or the receiving landfill, it is premature to perform an anlaysis of specific landfill capacity. However, landfills with the potential for receiving solid waste from the Proposed Project have been examined to determine the potential for impact. The results of this study are shown in Table V.K4-2. As shown, substantial capacity exists at area landfills. In addition, applications are made periodically for the expansion of existing landfills and the creation of new ones. The Bureau of Engineering continually plans (CiSWMP) for solid waste disposal, to assure that the disposal needs and recycling requirements of City development can be met.

Table V.K4-3
Potential Project Landfills and Capacity

Landfill Name	Location	2000 Total Disposal (Tons)	Peak Disposal (Tons/Day) Permitted	Landfill Capacity (Cubic Yards) Permitted	Remaining Landfill Capacity (Cubic Yards)	Permit Issue Date
Bradley West	San Fernando Valley	2,342,779	10,000	14,629,100	13,630,000	11/10/1999
Sunshine Canyon	Sylmar	1,485,832	6,600	23,720,000	17,120,000	12/17/1994
Scholl Canyon	Whittier	424,836	3,400	69,200	19,380,000	05/01/1996
Puente Hills	Whittier	3,646,069	13,200	106,400,000	30,640,000	01/04/1995
Calabasas	Agoura	346,690	3,500	69,700,000	26,090,000	09/10/1996

Sources: City of Los Angeles DPW telephone communication with Envicom Corporation, June 26, 2001, and Integrated Waste Management Board web site.

Mitigation Measures

While the Project impacts during the construction phase are not significant using City thresholds, the following mitigation measures shall be implemented to further reduce impacts associated with short-term demolition and construction operations:

1. The Project Applicant shall salvage and recycle construction and demolition materials to the maximum extent feasible. Documentation of a recycling program will be provided to the City of Los Angeles Department of Public Works.
2. The Project Applicant shall institute an on-site recycling/conservation which will include but not be limited to the following components:
3. The Applicant shall institute a Tenant Recycling Program by distributing individual containers to tenants and employees to separate recyclable materials and deposit them into larger containers to be removed by a recycling company.
4. Further recycling activities through education of source reduction methods shall be promoted (i.e. using recycled paper, double siding reports, re-usable cups, etc.)
5. The Project Applicant shall provide residential tenants with individual bins for separating recyclable materials, and provide access to a central recycling facility or storage bin.

Significant Project Impacts After Mitigation

Both Construction and operational impacts will be less than significant before mitigation.

Cumulative Impact

Solid waste generated from the projects on the related project list would yield an estimated 39,688 pounds of solid waste per day. (Calculation of cumulative solid waste generation is shown in **Table V.K4-3**.) Build-out of the Proposed Project would increase this amount to 43,081 pounds of solid waste per day. Because sufficient landfill capacity is available to receive solid waste from the related projects, including the Proposed Project, cumulative impacts to the solid waste systems would be considered less than significant.

Table V.K4-4
Solid Waste Generation from Related Projects

Use	Generation Rate (Lbs)	Solid Waste Generation (Lbs/Day)
93 Condominiums	10/Unit	930
187 Condominiums	10/Unit	1,870
36,641 S.F. Office	6/1,000 S.F.	220
2,074 S.F. Auto Service	5/1,000 S.F.	10
50 Room Motel	2/Room	100
70,000 S.F. Office	6/1,000 S.F.	420
1,140 S.F. Retail	5/1,000 S.F.	6
771,000 S.F. Studio	5/1,000 S.F.	3,855
25,000 S.F. Office	6/1,000 S.F.	150
874,000 S.F. Office	6/1,000 S.F.	5,244
20,043 S.F. Office	6/1,000 S.F.	120
400- Space Garage6,000 S.F. Retail	5/1,000 S.F.	30
330,000 S.F. Office	6/1,000 S.F.	1,980
76,125 S.F. Retail/Restaurant	5/1,000 S.F.	381
60,470 S.F. Gymnasium Staging Building	5/1,000 S.F.	300
296 unit Campus Housing	10/Unit	2,960
75,000 Staging Building	2/1,000 S.F.	150
1,000 unit Campus Housing & 2,068 parking spaces	10 Unit	10,000
Intramural Field Parking	NA	NA
101,900 S.F. Physics and Astronomy	6/1000 S.F.	611
95,000 S.F. Luck Research Center	6/1000 S.F.	570
3,600 S.F. Theatre	5/1,000 S.F.	18
1,600,000 S.F. University Expansion	6/1,000 S.F.	9,600
336 movie theater seats	5/1,000 S.F.	2
-12,300 S.F. Retail	5/1,000 S.F.	-62
2,000 S.F. Office	6/1,000 S.F.	12
42,223 S.F. Retail/Restaurant	5/1,000 S.F.	211
	Cumulative Demand	39,688
	Project Demand	*3,393*
	Project Plus Cumulative Demand	**43,081**

5. ELECTRICITY

Existing Conditions

Service Provider

The Los Angeles Department of Water and Power (LADWP) will provide electrical service to the Proposed Project. Service to the site vicinity is conveyed via a 34.5 kV distribution system from Receiving Station K (RS-K). Currently, RS-K has a service capacity of 375 Mega Volt Amperes (MVA). While some service providers in California are currently experiencing an energy crisis, LADWP, with a smaller service area that is more efficient to serve, has not experienced the same shortages or high rate increases to compensate for such shortages. The State of California is currently studying the situation and making plans to address the shortage of energy through conservation measures, facility expansions and other means.

Existing Consumption

Currently, the Proposed Project site is partially developed with a mix of land uses including a 42-unit apartment complex (Glendon Manor), 29,400 square feet of retail, a 652-seat theater and two surface parking lots with a total of 554 spaces. Using average usage rates for the LADWP, and assuming all uses were in operation, the existing land uses would consume 1,236,103 kilowatt hours per year (kWh). The calculation of usage is shown in **Table V.K5-1**. A percentage of the existing capacity serving the area around the proposed site is allocated to the existing land uses. Development of the Proposed Project would include the removal of all existing land uses prior to construction. The consumption of energy from existing land uses will be subtracted from the Proposed Project contribution as a means of accurately calculating the net increase from the Proposed Project.

Table V.K5-1
Potential Energy Consumption from Existing Structures [(a)]

Existing Land Use	Size	Consumption Rate (kWh/yr)	Total Energy Consumed (kWh/year)
Theater (652 seats)	12,000 S.F.	13.55 kWh/S.F./year	162,600
Retail	29,400 S.F.	13.55 kWh/S.F./year	398,370
Residential Apts.	42 units	5,626.5 /Unit	236,313
Parking Lot	118,600 S.F.	3.7 /S.F	438,820
		Total	**1,236,103**

Source: South Coast Air Quality Management District, CEQA Air Quality Handbook, April 1993, Table A9-11-A, Electricity Usage Rate

[(a)] Although existing facilities are currently predominately vacant, this table calculates energy usage already "entitled" by development that existed at the time of the NOP.

Energy Conservation

As part of Title 24 of the California Code of Regulations, new buildings are required to meet the State Building Energy Efficiency Standards for energy consumption. These standards apply to residential and non-residential development and regulate energy consumed for heating, cooling,

ventilation, water heating, and lighting. The standards are subject to change at the discretion of local government agencies as long as they meet or exceed the standards set forth by Title 24. The local building efficiency standards are enforced through the building and safety department. Periodic changes to Title 24 have resulted in new construction being more energy efficient.

Threshold of Significance

The LA CEQA Thresholds Guide sates that the determination of significance for project energy impacts shall be made on a case-by-case basis, considering the following factors:

- 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; and
- The degree to which the project design and/or operations incorporate energy conservation measures, particularly those that go beyond City requirements.

Based upon this guidance, the Proposed Project would be significant if it could not be accommodated by exiting or planned electricity infrastructure or capacity to be in place at Project buildout.

Project Impacts

Energy consumption rates used to calculate average annual electrical load from the Proposed Project are set forth in the South Coast Air Quality Management District's, CEQA Air Quality Handbook, Table A9-11-A, "Electrical Usage Rates". Based on these rates, operation of the Proposed Project would contribute a total annual energy consumption of approximately 4,036,025 kWh **(Table V.K5-2)**. With currently "entitled" levels of impact at approximately 1,236,103 kWh (Table V.K5.-1), development of the Proposed Project would result in a net increase of 2,799,922 kWh on an annual basis. It should be noted that the estimated rates that would be utilized for existing older structures and the estimated rates for new structures are the same. However, given less stringent codes at the time of their construction, the existing buildings are likely to be less energy efficient. Thus, this analysis is conservative in that existing structures likely require more energy usage than indicated. Therefore, the Project impact is likely even less than cited here.

The Department of Water and Power has reviewed the Proposed Project's load estimates and determined that no service problems are anticipated as a result of Project implementation. Pursuant to the Applicant's meetings with LADWP, The existing 34.5 kV distribution system currently serving the subject property will be adequate to serve the demands of the Proposed Project. According to LADWP, the Proposed Project will require a new below-grade substation housing a total of four transformers. The transformers will serve commercial uses with 6,000 amps at 277/480 volt 3-phase power, and residential uses with 6,000 amps at 208/120 volt 3-phase power.

The Proposed Project would result in an incremental increase to the local and regional demand for electrical service. The increased demand is anticipated to result in a less than significant adverse impact on electrical resources.

Table V.K5-2
Proposed Project Energy Consumption

Use	Usage Rate	Energy Consumption (kWh/year)
Residential Apartment (350 Units)	5,626.50 /Unit	1,969,275 kWh
Retail (100,000 S.F.)	13.55 /S.F.	1,355,000kwh
Restaurant (15,000 S.F.)	47.45 /S.F.	711,750 kWh
	New Development	4,036,025 kWh
	Potential from Existing Structures	*1,236,103 kWh*
	Net Increase	**2,799,922 kWh**

Source: South Coast Air Quality Management District, CEQA Air Quality Handbook, April 1993, Table A9-11-A, Electricity Usage Rate.

Mitigation Measures

The Proposed Project would result in a less than significant impact on energy resources. Nevertheless, the following mitigation measures would further reduce electrical demand:

1. The Proposed Project shall comply with the requirements set forth in Title 24 of the California Code of Regulations.
2. The Project Applicant shall consult with the LADWP regarding the implementation of energy conservation measures including:

   - Built-in appliances, refrigerators, and space conditioning equipment should exceed the minimum efficiency levels mandated in the California Code of Regulations.
   - High efficiency air conditioning controlled by a computerized energy management system in the office and retail spaces shall be used.
   - Thermal energy shall be used to handle cooling loads.
   - Ventilation air shall be circulated from high-priority to low-priority areas before being exhausted, thereby decreasing the volume of ventilation air required.
   - Lighting system heat for space heating during cool weather shall be recycled. Lighting system heat shall be exhausted from the buildings through ceiling plenums to reduce cooling loads.
   - Low and medium static pressure terminal units and ductwork shall be installed to reduce energy consumption by the air-distribution system.
   - Buildings shall be well sealed to prevent outside air infiltrating and to increase interior space conditioning loads.
   - Building entrances shall be designed with vestibules to restrict infiltration of unconditioned air and exhausting conditioned air.
   - Performance checks shall be conducted on the installed space conditioning system (to be completed by the developer/installer) prior to issuance of the certificate of occupancy to ensure that energy efficiency measures incorporated into the Project operate as designed.

- Exterior walls shall be finished with light colored materials and high emissivity characteristics to reduce cooling loads. Interior walls shall be finished with light colored materials to reflect more light and increase lighting efficiency.
- Thermal insulation shall be installed in walls and ceilings, which exceeds requirements, established by the California Code of Regulations.
- Window systems shall be designed to reduce thermal gain and loss, thus reducing cooling loads during warm weather and heating loads during cool weather.
- Install heat reflective draperies on appropriate exposures.
- Install fluorescent and high intensity discharge (HID) lamps, which give the highest light output per watt of electricity consumed wherever possible, including exterior fixtures.
- Install time-controlled interior and exterior public area lighting limited to that necessary for safety and security.
- Control HVAC and lighting mechanical systems with timing systems to prevent accidental or inappropriate conditioning or lighting of unoccupied areas.
- Incorporate windowless walls or passive solar inset of windows into the Project for appropriate exposures.
- Design the Project to focus pedestrian activity within sheltered outdoor areas.

Significant Project Impacts After Mitigation

The Proposed Project would result in a less than significant adverse impact on electrical resources. Implementation of the mitigation measures set forth in this section would further reduce impacts and conserve energy. The impact would remain less than significant before and after mitigation.

Cumulative Impacts

Implementation of all projects within the related project list would result in the consumption of approximately 57,834,080 kWh per year. Calculation of this number is shown in **Table V.K5-3**. The addition of the Proposed Project would bring the energy consumption to 60,634,002 kWh per year. The additional electrical load imposed by the Proposed Project and the related project list is within the capacity of the LADWP. All projects included under the related project list would be required by Code to incorporate energy conservation measures into their design and function. Therefore, cumulative impacts on the provision of electrical services are anticipated to be less than significant.

Table V.K5-3
Energy Consumption from Related Projects

Use	Consumption Rate (kWh/yr)	Total Energy Consumed (kWh/year)
93 Condominiums	5,626.5/Unit	523,264 kWh
187 Condominiums	5,626.5/Unit	1,052,155
36,641 S.F. Office	12.95/S.F.	474,500
2,074 S.F. Auto Service	10.50/ S.F.	21,777
50 Room Motel **(a)**	9.95/S.F.	373,125
70,000 S.F. Office	12.95/ S.F.	906,500
1,140 S.F. Retail	13.55/ S.F.	15,447
771,000 S.F. Studio	10.50/S.F.	8,095,500
25,000 S.F. Office	12.95/S.F.	323,750
874,000 S.F. Office	12.95/ S.F.	11,318,300
20,043 S.F. Office	12.95/ S.F.	259,556
400- Space Garage	13.55/ S.F.	81,300
6,000 S.F. Retail		
330,000 S.F. Office	12.95/ S.F.	4,273,500
76,125 S.F. Retail/Restaurant	13.55/S.F.	1,031,494
60,470 S.F. Gymnasium Staging Building	4.35/ S.F.	263,044
296 unit Campus Housing	5,626.5/unit	1,665,444
75,000 Staging Building	4.35/S.F.	326,250
1,000 unit Campus Housing & 2,068 parking spaces	5,626.5/unit	5,626,500
Intramural Field Parking	NA	NA
101,900 S.F. Physics and Astronomy	11.55/S.F.	1,176,945
95,000 S.F. Luck Research Center	11.55/ S.F.	1,097,250
3,600 S.F. Theatre	4.35/S.F.	15,660
1,600,000 S.F. University Expansion	11.55/ S.F.	18,480,000
336 movie theater seats	4.35/S.F.	1,462
-12,300 S.F. Retail	13.55/S.F.	-166,665
2,000 S.F. Office	12.95/S.F.	25,900
42,223 S.F. Retail/Restaurant	13.56/S.F.	572,122
	Cumulative Demand	57,834,080 kWh
	Net Project Demand	*2,799,922 kWh*
	Project Plus Cumulative Demand	**60,634,002 kWh**

[(a)] Assumes 750 S.F./unit.