

3. WATER

ENVIRONMENTAL SETTING

The LADWP provides water service to the project area. It is the responsibility of the DWP to insure that the quality of the water meets all applicable standards for drinking water, which are established by the United States Public Health Service. The Project Site and Add Area are within the LADWP Water Service Organization (WSO) 1134 service zone.

According to the Fiscal Year 2000-2001 Urban Water Management Plan Annual Update (Water Plan) prepared by the LADWP, the City of Los Angeles used approximately 667,467 acre-feet in fiscal year 2001. The City of Los Angeles receives this water from three primary sources including the Los Angeles Aqueducts (LAA), local groundwater, and the Metropolitan Water District of Southern California (MWD).

Approximately 51 percent (343,403 acre-feet) of the City's water resource mix for the 2000-2001 fiscal year was provided by the MWD. The Los Angeles Aqueducts (LAA) provided the second largest supply of water to the City in fiscal year 2000-2001 supplying approximately 36 percent (238,997 acre-feet) of the total water demand. Local groundwater resources (primarily located in the San Fernando Basin) supplied the remaining approximately 13 percent (85,067 acre-feet) of the total 2000-2001 water demand.

The MWD supply is a combination of the Colorado River, the State Water Project, and dry-year storage/exchange programs in Diamond Valley Lake, the Central and Imperial Valleys, and northern Los Angeles County. The MWD also continues to operate drought and emergency reservoirs. This supply could be reduced in the future due to pending or future agreements or litigation. In the Fall of 2002, MWD entered into the Colorado River Quantification Settlement Agreement (QSA) with the Coachella Valley Water District and the Imperial Irrigation District. The QSA will implement major components of California's draft Colorado River Water Use Plan and provide part of the mechanism for California to reduce its diversions of Colorado River water to the state's normal year apportionment of 4.4 million acre-feet. The QSA components would provide a framework for conservation measures and water transfers for up to 75 years.

Water deliveries by the LAA will be subject to further reductions in upcoming years with continuing environmental obligations in the Mono Basin and Owens Valley. Both the LAA and local groundwater sources are susceptible to reduced yields, particularly in years of less than average rainfall and/or snowmelt.

Although the City of Los Angeles is not currently experiencing drought conditions and therefore not required to participate in mandatory conservation measures, past history has shown that the region is susceptible to long periods of drought. The LADWP is active in the development and construction of water recycling projects to help alleviate potential water shortages during times

of drought. Water recycling projects in operation include, but are not limited to, the East Valley, Westside, Griffith Park/California DOT, Los Angeles Greenbelt Project.

LADWP is involved in the development of water recycling projects. Water recycling projects in the planning phases include the Harbor Water Recycling Project, the Central City/Elysian Park Water Recycling Project, and the Headworks Water Recycling Project. As an example, the Headworks project, although still in the planning stages, is proposed to yield approximately 10,000 acre-feet per year of groundwater recharge by delivering reclaimed water from the Tillman Plant to the Headworks Spreading Grounds. LADWP's recycled water programs are expected to produce over 102,000 acre-feet per year by 2020. In 2000, production of recycle water totaled 41,550 acre-feet per year. Treated water is currently being used for irrigation, industrial, and recreational purposes.

According to the LADWP, the City of Los Angeles currently mandates water conservation measures. These measures include, but are not limited to, prohibited use of water on hard surfaces (i.e. sidewalks, driveways), watering lawns between the hours of 10 am and 5 pm (between April 1 and September 30), allowing excess water from sprinklers to flood gutters, having a non-recirculating fountain, serving water in restaurants (unless requested), and allowing leaks to go unattended. Rebates for installation of low flow-toilets and showerheads are also available. Tiered rate pricing is imposed during declared water shortages.

Table 110: Existing Water Distribution Mains summarizes the water distribution mains that serve the project area that WSO service zone 1134 currently maintains. Current water consumption on the Project Site is approximately 77 acre-feet and consumption at the Add Area is approximately 24 acre-feet annually.

TABLE 110
EXISTING WATER DISTRIBUTION MAINS

Location	Water Main
Plummer Street (between Corbin and Shirley Aves)	12-inch main, located approximately 24 feet south of centerline
Corbin Avenue (between Plummer and Nordhoff Sts)	12-inch main, location varies from 15-20 feet west of centerline
Shirley Avenue (between Nordhoff and Prairie Sts)	12-inch main, located approximately 16 feet west of centerline
Shirley Avenue (between Prairie and Plummer Sts)	8-inch main, located approximately 14 feet east of centerline
Nordhoff Street (between Corbin and Shirley Aves)	12-inch main, located approximately 28 feet south of centerline
Melvin Avenue (Prairie St to dead end)	8-inch main, located approximately 12 feet east of centerline
SOURCE: Letter from Charles Holloway, Supervisor, Environmental Assessment LADWP, to Carrie Riordan of Planning Associates, Inc. June 11, 2002.	

Project Site

Current water consumption on the Project Site for existing uses is approximately 68,251 gallons per day (77 acre-feet per year), as shown in **Table 111: Existing Project Site Water Demand**.

TABLE 111
EXISTING PROJECT SITE WATER DEMAND

Land Use	Water Demand Factor	Units	Daily Consumption (Gallons)	Annual Consumption (Acre-Feet)
Industrial	80 gpd/1000 sf ¹	12,450 sf	996	1
Office	180 gpd/1000 sf ¹	310,000 sf	55,800	63
Warehouse	20 gpd/1000 sf ¹	4,000 sf	80	<1
Total existing indoor water demand			56,876	64
Outdoor water demand ²			11,375	13
Total existing Project Site water demand			68,251	77

¹LADWP, Background calculations for Corbin and Nordhoff Water Supply Availability Assessment. June 26, 2002.
²Assumed to be 20% of total indoor water demand

Add Area

Water consumption from existing development within the Add Area is approximately 21,012 gallons per day (24 acre-feet per year), as shown in **Table 112: Existing Add Area Water Demand**.

THRESHOLDS OF SIGNIFICANCE

According to the City of Los Angeles CEQA Thresholds Guide, the determination of significance 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 the project completion; and

TABLE 112
EXISTING ADD AREA WATER DEMAND

Land Use	Water Demand Factor	Units	Daily Consumption (Gallons)	Annual Consumption (Acre-Feet)
Industrial	80 gpd/1000 sf ¹	42,165 sf	3,373	4
Manufacturing	80 gpd/1000 sf ¹	83,050 sf	6,644	7
Office	180 gpd/1000 sf ¹	27, 427 sf	4,937	6
Storage	20 gpd/1000 sf ¹	97,554 sf	1,951	2
Warehouse	20 gpd/1000 sf ¹	30,231 sf	605	<1
Total existing indoor water demand			17,510	20
Outdoor water demand ²			3,502	4
Total existing Add Area water demand			21,012	24

¹LADWP, Background calculations for Corbin and Nordhoff Water Supply Availability Assessment. June 26, 2002.
²Assumed to be 20% of total indoor water demand

- The degree to which scheduled water infrastructure improvements of project design features would reduce or offset service impacts.

Significant impacts on water resources are further defined as the use of substantial amounts of water resulting in a net deficit in the aquifer volume or local groundwater table level, or that requires substantial off-site infrastructure improvements to meet Project water demands. Pursuant to California State Water Code Section 10910(e), a water supply assessment must be completed by the WSO on all projects proposing more than 500 residential units to assure the availability of the water resources.

ENVIRONMENTAL IMPACTS

Project Site

The proposed water demand of each of the four scenarios at the Project Site is summarized in **Table 113: Proposed Project Site Water Demand**. As shown in **Table 113: Proposed Project Site Water Demand**, the scenario with the highest water demand is Scenario 2: Office which requires approximately 298 acre-feet annually. This would increase water demand at the Project Site by approximately 221 acre-feet annually.

TABLE 113
PROPOSED PROJECT SITE WATER DEMAND

Land Use	Water Demand Factor	Units	Daily Consumption (Gallons)	Annual Consumption (Acre-Feet)
Scenario 1 Proposed Project Site Water Demand				
Retail	110 gpd/1000 sf ¹	340,000 sf	37,400	42
Senior Housing	120 gpd/du ²	389 du	46,680	52
Assisted Living	75 gpd/bed ²	35 beds	2,625	3
Project Site total indoor water demand			86,705	97
Project Site total outdoor water demand ³			17,341	19
Project Site total water demand			104,046	116
Scenario 2 Proposed Project Site Water Demand				
Office	180 gpd/1000 sf ²	930,000 sf	167,400	188
Senior Housing	120 gpd/du ²	389 du	46,680	52
Assisted Living	75 gpd/bed ²	35 beds	2,625	3
Project Site total indoor water demand			216,705	243
Project Site outdoor water demand ³			43,341	49
Project Site total water demand			260,046	292
Scenario 3 Proposed Project Site Water Demand				
Retail	110 gpd/1000 sf ¹	250,000 sf	27,500	31
Condominiums	160 gpd/du ²	300 du	48,000	54
Senior Housing	120 gpd/du ²	389 du	46,680	52
Assisted Living	75 gpd/bed ²	35 beds	2,625	3
Project Site total indoor water demand			124,805	140
Project Site total outdoor water demand ³			24,961	28
Project Site total water demand			149,766	168
Scenario 4 Proposed Project Site Water Demand				
Office	180 gpd/1000 sf ²	690,000 sf	124,200	139
Condominiums	160 gpd/du ²	300 du	48,000	54
Senior Housing	120 gpd/du ²	389 du	46,680	52
Assisted Living	75 gpd/bed ²	35 beds	2,625	3
Project Site total indoor water demand			221,505	248
Project Site outdoor water demand ³			44,301	50
Project Site total water demand			265,806	298
¹ Assumed to be 110 percent of sewage generation rate. City of Los Angeles Wastewater Program Management, Sewer Facilities Charge Guide and Generation Rates, August, 1988. ² LADWP, Background calculations for Corbin and Nordhoff WSA. June 26, 2002. ³ Assumed to be 20% of total indoor water demand.				

Domestic water service for new development at the Project Site would be provided by the LADWP, the agency that currently provides water service to the area. Pursuant to California Water Code Section 10910(e) which requires the governing body of each public water system to approve a water availability assessment, the WSO prepared a water supply assessment for the proposed Project.

Projected water demand from approved water availability assessments are tracked and the uses are discounted from the anticipated growth in water demand within the service area, which is reported in the City of Los Angeles' Year 2000 Urban Water Management Plan (Water Plan). The Water Plan describes LADWP's long-term water resources plans, and is updated every five years per state mandate to reflect changes to LADWP's long-term water resources plans.

The Los Angeles Citywide General Plan Framework EIR provides a projection of the City's water demand through 2010. According to the LADWP, the projected average water supply in 2010 for the City of Los Angeles is expected to be 756,500 acre-feet per year while the projected maximum total available water supply is expected to be 1,370,646 acre-feet per year.¹⁰⁰ Based on the a Citywide water demand of approximately 667,467 acre-feet in 2000-2001¹⁰¹, an increase of approximately 221 acre-feet as a result of the proposed Project would be accommodated by the LADWP projected water supply for 2010. Additionally, a water supply assessment conducted by the LADWP indicates that the projected growth in water demand from development at the Project Site falls within the range of expected water demand growth within the City.¹⁰² Therefore, it is expected that LADWP will have sufficient water supplies to serve the Site's needs during normal and drought conditions and will not require additional infrastructure improvements. As a result, the proposed Project at the Project Site would result in a less than significant impact to water supply.

Add Area

The potential water demand of each of the four scenarios at the Add Area is summarized in **Table 114: Proposed Add Area Water Demand**. As shown in **Table 114: Proposed Add Area Water Demand**, the scenario with the highest water demand is Scenario 2: Office which requires approximately 142 acre-feet annually. This would increase water demand within the Add Area by approximately 118 acre-feet annually.

¹⁰⁰Los Angeles Citywide General Plan Framework EIR, Section 2.6.3.6 Projected Water Supply.

¹⁰¹Final Year 2000 2001 Urban Water Management Plan Update

¹⁰²LADWP WSA. Baseline water consumption for new development on the Project Site was based on estimates of Sewer Generation Rates developed by the LADPW, Bureau of Engineering. Sewer Generation Rates provide an approximation of the amount of water used in various facilities within the City of Los Angeles.

TABLE 114
PROPOSED ADD AREA WATER DEMAND

Land Use	Water Demand Factor	Units	Daily Consumption (Gallons)	Annual Consumption (Acre-Feet)
Scenario 1: Retail Add Area				
Retail	110 gpd/1000 sf ¹	200,000 sf	22,000	25
Add Area total indoor water demand			22,000	25
Add Area total outdoor water demand ³			4,400	5
Add Area total water demand			26,400	30
Scenario 2: Office Add Area				
Office	180 gpd/1000 sf ²	586,000 sf	105,480	118
Add Area total indoor water demand			105,480	118
Add Area outdoor water demand ³			21,096	24
Add Area total water demand			126,576	142
Scenario 3: Retail/Residential Add Area				
Retail	110 gpd/1000 sf ¹	150,000 sf	16,500	19
Condominiums	160 gpd/du ²	100 du	16,000	18
Add Area total indoor water demand			32,500	37
Add Area total outdoor water demand ³			6,500	7
Add Area total water demand			39,000	44
Scenario 4: Office/Residential Add Area				
Office	180 gpd/1000 sf ²	435,000 sf	78,300	88
Condominiums	160 gpd/du ²	100 du	16,000	18
Add Area total indoor water demand			94,300	106
Add Area outdoor water demand ³			18,860	21
Add Area total water demand			113,160	127
¹ Assumed to be 110 percent of sewage generation. City of Los Angeles Wastewater Program Management, Sewer Facilities Charge Guide and Generation Rates, August, 1988. ² LADWP, Background calculations for Corbin and Nordhoff Water Supply Availability Assessment. June 26, 2002. ³ Assumed to be 20% of total indoor water demand.				

Domestic water service for new development at Add Area would be provided by the LADWP, the agency that currently provides water service to the area. Pursuant to California Water Code Section 10910(e), the WSO prepared a water availability assessment for the development scenarios analyzed. Projected water demand from approved water availability assessments are tracked and the uses are discounted from the anticipated growth in water demand within the service area, which is reported in the City of Los Angeles' Year 2000 Urban Water management Plan (Water Plan). The Water Plan describes LADWP's long-term water resources plans, and is updated every five years per state mandate to reflect changes to LADWP's long-term water resources plans.

Based on the a Citywide water demand of approximately 667,467 acre-feet in 2000-2001¹⁰³, the increase of approximately 118 acre-feet as a result of the development scenarios analyzed for the Add Area would be accommodated by the projected supply. Additionally, a water supply assessment conducted by the LADWP indicates that the projected growth in water demand from the analyzed development scenarios falls within the range of expected water demand growth within the City.¹⁰⁴ Therefore, it is expected that LADWP will have sufficient water supplies to serve the additional demand during normal and drought conditions and will not require additional infrastructure improvements. As a result, development scenarios analyzed for the Add Area would result in a less than significant impact to water supply.

MITIGATION MEASURES

Although a significant impact to water supply was not identified due to project implementation, the following measures will further reduce any potential impacts to a less than significant level:

85. Install efficient irrigation systems which minimize runoff and evaporation, avoid unnecessary watering, and maximize water reaching the plant roots. (O, C, R)
86. Landscape plans shall emphasize low water consumption grasses wherever possible. (O, C, R)
87. Water in fountains, ponds, and other landscape features shall use recirculating water systems to prevent waste. (O, C, R)
88. Incorporate water saving techniques, including water conserving plumbing, low flow toilets, showers, and faucets. (O, C, R)

¹⁰³Final Year 2000 2001 Urban Water Management Plan Update

¹⁰⁴LADWP WSA. Baseline water consumption for the proposed project was based on estimates of Sewer Generation Rates developed by the LADPW, Bureau of Engineering. Sewer Generation Rates provide an approximation of the amount of water used in various facilities within the City of Los Angeles.

89. Landscaped areas shall comply with the Xeriscape Ordinance and emphasize drought tolerant landscaping to reduce irrigation water consumption. (O, C, R)
90. Compliance with State and Health and Safety Code Section 17921.3 requiring low-flush toilets, as defined by the American National Standards Institute A112.19.2, and urinals that use less than 1.5 gallons per flush. (O, C, R)

LEVEL OF IMPACT AFTER MITIGATION

Less than significant.

CUMULATIVE IMPACTS

Related Projects

According to the Los Angeles Citywide General Plan Framework EIR, the average water supply for 2010 is estimated to be approximately 756,500 acre-feet. The maximum projected total available water supply for 2010 for the City of Los Angeles is expected to be approximately 1,370,646 acre-feet per year.

Related projects are anticipated to consume a total of approximately 1,726,187 gallons per day (1,934 acre-feet per year), as shown in **Table 115: Related Projects Water Demand**. This cumulative increase could produce an area-wide adverse impact, given potential drought conditions and current and future State and local conservation objectives. However, based on Citywide water demand of approximately 667,467 acre-feet in 2000-2001, an increase of approximately 1,934 acre-feet as a result of related projects would be accommodated by the projected water supply.

Further, as with the proposed Project, each related project requiring discretionary approval would be subject to environmental review and to appropriate water conservation requirements and mitigation measures. Local water line capacity for each related project can only be determined on a project-specific basis. Therefore, related projects in the project area may result in a significant impact to water resources. However, with a site-specific water assessment and incorporation of site-specific mitigation measures, any significant impacts as a result of related projects in the area will be reduced to a less than significant level.

Proposed Project, Add Area, and Related Projects

The City of Los Angeles' Year 2000-2001 Urban Water management Plan Update (Water Plan) describes LADWP's long-term water resources plans, and is updated every five years per state mandate to reflect changes to LADWP's long-term water resources plans.

TABLE 115
RELATED PROJECTS WATER DEMAND

Related Project No.	Land Use	Water Demand Factor	Units	Daily Consumption (Gallons)	Annual Consumption (Acre-Feet)
1	Shopping Center	110 gpd/1000 sf	28,404 sf	3,124	4
2	Drug Store	110 gpd/1000 sf	16,580 sf	1,824	2
3	Church	11 gpd/person	600 people	6,600	7
	senior residential	120 gpd/du	58 du	6,960	8
	Preschool	11 gpd/student	45 students	495	<1
4	Hotel	165 gpd/room	300 rooms	49,500	55
	Single Family Residential	363 gpd/du	2195 du	796,785	893
	Multifamily residential	160 gpd/du	1400 du	224,000	251
	Medical Office	330 gpd/1,000 sf	80,000 sf	26,400	30
	Retail	110 gpd/1,000 sf	2,275,000	250,250	280
	Restaurant	330 gpd/1,000 sf	45,000 sf	14,850	17
	Office	180 gpd/1,000 sf	560,000 sf	100,800	113
5	Single Family Residential	363 gpd/du	484 du	175,692	197
6	High School	16.5 gpd/student	888 students	14,652	16
7	Office/Classroom	180 gpd/1,000 sf	171,000 sf	30,780	35
9	Office	180 gpd/1,000 sf	80,000 sf	14,400	16
10	High school	16.5 gpd/student	550 students	9,075	10
Total Related Projects Water Demand				1,726,187	1,934

The proposed cumulative water demand as a result of the proposed Project at the Project Site and development scenarios analyzed for the Add Area, in combination with related projects, is approximately 2,273 acre-feet annually. Based on the Citywide water demand of approximately 667,467 acre-feet in 2000-2001¹⁰⁵, a cumulative increase of approximately 2,273 acre-feet would be accommodated by the expected supply. Additionally, a water supply assessment would need to be conducted on a project-specific basis for all related projects. Therefore, it is expected that LADWP will have sufficient water supplies to serve the project's needs during normal and drought conditions and will not require additional infrastructure improvements. As a result, a cumulative impact to the water supply is not anticipated.

¹⁰⁵Final Year 2000 2001 Urban Water Management Plan Update