

## **IV. ENVIRONMENTAL IMPACT ANALYSIS**

### **N.2. UTILITIES: WATER**

#### **1. INTRODUCTION**

Consistent with the Urban Water Management Planning Act (see Regulatory and Policy Setting discussion below), the City of Los Angeles Department of Water and Power (LADWP) maintains an Urban Water Management Plan (LA-UWMP) which includes estimates of past, current, and projected potable and recycled water use; identifies conservation and reclamation measures currently in place; describes alternative conservation measures; and provides an urban water shortage contingency plan. The 2010 LA-UWMP provides water supply and demand projections in five-year increments to 2035, which are based on projected population estimates provided by the Southern California Association of Governments (SCAG).

In particular, the 2010 LA-UWMP emphasizes conservation and reuse. The adopted 2010 Plan focuses on recycling water for industrial use and for irrigation in public areas. LADWP's 2005 Plan included a proposal for a desalination plant, but the expensive project never came to fruition.

Water supply and Project water demand in this section are evaluated in the context of urban water management and planning requirements.

#### **2. ENVIRONMENTAL CONDITIONS**

##### **a. Physical Setting**

###### **(1) Existing Water Supply**

The LADWP owns, operates, and maintains all water facilities within the City of Los Angeles and is responsible for ensuring that the delivered water meets all applicable State quality standards. The Weddington Golf & Tennis Club is located within the City, and as such, LADWP is responsible for delivering water to the Project Site.

LADWP supplies water to its customers from four main sources: (1) the Mono Basin and Owens Valley, located on the east side of the Sierra Nevada Mountains delivered via the Los Angeles Aqueduct (LAA); (2) local groundwater basins, including the San Fernando, Sylmar, Eagle Rock, Central Coast, and West Coast basins; (3) purchases of State Water Project (SWP) and Colorado River water from the Metropolitan Water District (MWD); and (4) water recycling. LADWP operates the Los Angeles-Owens River Aqueduct (i.e., the LAA) and is a member of the MWD.

LADWP had an available water supply of 555,477 acre-feet per year (AFY) for the fiscal year 2009-2010. The 2010 LA-UWMP forecasts the available water supplies through the year 2035, which is projected to be 710,800 AFY at that point in time.

On average for the fiscal years 2006-10, City water supplies were derived from the following sources: (1) the Los Angeles Aqueduct, contributing approximately 36 percent; (2) groundwater, contributing approximately 11 percent; (3) purchases from the MWD, contributing approximately 52 percent; and (4) recycled water (for industrial and irrigation purposes), representing approximately 1 percent.<sup>1</sup> These sources are described in more detail later. Reliance on the MWD component is typically reduced during normal/average years. Furthermore, through the year 2035, the MWD component is projected to be reduced to fewer than 30 percent and replaced by water conservation, stormwater capture, and water transfer components, as well a greater City-wide reliance on recycled water.

The amount of water obtained from these sources varies from year to year based on demand and weather conditions. In addition, improved technology, as well as acceptance and application of reclaimed wastewater, continue to expand the role of recycled water as a water supply component. Additionally, application of water conservation practices, including low impact development (LID) measures and use of drought-tolerant landscaping, will shift water supply needs over time.

In 1993, MWD commenced its Integrated Resources Plan (IRP) process, which is designed to reduce MWD's dependency on imported water during droughts or other shortages. The IRP includes a variety of projects and programs, including: (1) providing financial incentives for local projects and conservation; (2) increased surface storage in Diamond Valley Lake and SWP reservoirs; (3) groundwater storage programs in the Central Valley, Imperial Valley, and Coachella Valley; (4) short- and long-term water transfers; and (5) local groundwater storage programs with participating member agencies. As part of its IRP update, MWD is planning for the development of a 500,000 acre-foot supply which will provide sufficient water to its member agencies even during critically dry events from now until at least 2025. MWD, along with LADWP and other member agencies, also established a Water Surplus and Drought Management Plan to ensure MWD's ability to meet its member agencies' future water needs.

In addition to purchases from MWD, the City of Los Angeles intends to enhance its water supplies through continued conservation measures and increased use of recycled water. LADWP is committed to expanding its recycled water program and has several projects that provide recycled water for landscape irrigation and commercial use. For example, the City uses recycled water in Griffith Park to irrigate two golf courses and a seven-mile stretch of open space along the Golden State Freeway. In addition, LADWP is evaluating the potential for using recycled water for recharging groundwater supplies.

As a result of LADWP's multiple supply sources and continued water management planning, the LA-UWMP concluded that LADWP will have adequate water supplies to serve City needs through the year 2035, during normal, single-dry, and multiple-dry years, taking into account projected population growth and various established and expected land uses based on current zoning. The LA-UWMP indicates that LADWP is planning for future population growth in its service area, similar to the manner in which the City's General Plan forecasts population growth

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<sup>1</sup> Exhibit 11C. Los Angeles Department of Water and Power. *2010 Urban Water Management Plan*, Exhibit 11C 2011, 3 May 2011 <[https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?\\_adf.ctrl-state=18pb7t1oha\\_29&\\_afLoop=110879001935000](https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?_adf.ctrl-state=18pb7t1oha_29&_afLoop=110879001935000)>.

in planning for future growth and development throughout the City. Both the General Plan and the LA-UWMP's growth projections are based on population forecasts provided by the SCAG.

Additional details on the City's water supply sources are provided in the following discussion:

Los Angeles Aqueduct (LAA) - Water supplies from the Los Angeles Aqueduct originate from both snowmelt runoff and groundwater, and therefore can fluctuate yearly due to varying hydrologic and climate conditions. Aqueduct supplies are primarily collected from snowmelt runoff from the Eastern Sierra Nevada Mountains, which is conveyed to the City of Los Angeles via the aqueduct. The City holds water rights in the Eastern Sierra Nevada Mountains. Aqueduct supplies come from groundwater pumping in the Owens Valley and Mono Basin. In recent years, aqueduct supplies have been less than normal due to environmental obligations to restore Mono Lake and mitigate dust from the Owens Lake. LADWP's ability to export Mono Basin water is now tied directly to the elevation of Mono Lake and flows of various streams that are tributary to Mono Lake. As such, when Mono Lake reaches its target elevation, exports from the Mono Basin can increase from the current suppressed levels of 16,000 AFY.

Groundwater - LADWP extracts groundwater from various locations throughout the Owens Valley and four local groundwater basins (i.e., the San Fernando, Sylmar, Central, and West Coast groundwater basins). Because LADWP owns extensive property in the Owens Valley, it appropriates groundwater for use in the Owens Valley area, as well as Los Angeles. The groundwater basins in Los Angeles County have been adjudicated, meaning that the groundwater supplies and quantities have been assigned by the courts to existing users. The San Fernando Basin, which consists of 112,000 acres of land and comprises 91.2 percent of the Upper Los Angeles River Area (ULARA) valley fill, is the largest of the four local basins. LADWP has accumulated nearly 404,400 acre-feet of stored water credit (i.e., banked) in the San Fernando Basin as of October 2009, which can be withdrawn from the basin during normal and dry years or in an emergency.<sup>2</sup> This banked groundwater is in addition to LADWP's annual entitlement of approximately 87,000 acre-feet from the basin. The majority of LADWP's local groundwater is extracted from the San Fernando Basin.

Sylmar Basin, located in the northern part of the ULARA, consists of 5,600 acres and comprises 4.6 percent of the ULARA valley fill. LADWP has an annual entitlement of 3,255 AFY from the Sylmar Basin. LADWP also has adjudicated rights to extract groundwater from the Central and West Coast Basins, with annual entitlements of 15,000 AFY and 1,503 AFY, respectively. Currently, LADWP does not exercise its pumping rights to the West Coast Basin due to localized water quality issues.<sup>3</sup>

Metropolitan Water District (MWD) – MWD is the largest water wholesaler for domestic and municipal water uses in southern California. MWD imports a portion of its water supplies from

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<sup>2</sup> Los Angeles Department of Water and Power. 2011. *2010 Urban Water Management Plan*, Page 124, 3 May 2011 <[https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?\\_adf.ctrl-state=18pb7t1oha\\_29&\\_afLoop=110879001935000](https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?_adf.ctrl-state=18pb7t1oha_29&_afLoop=110879001935000)>.

<sup>3</sup> Los Angeles Department of Water and Power. 2011. *2010 Urban Water Management Plan*, Pages 129-132, 3 May 2011 <[https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?\\_adf.ctrl-state=18pb7t1oha\\_29&\\_afLoop=110879001935000](https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?_adf.ctrl-state=18pb7t1oha_29&_afLoop=110879001935000)>.

northern California through the SWP's California Aqueduct and the Colorado River through the MWD's own Colorado River Aqueduct. MWD's long-term plans to meet its member agencies' growing demands are through water transfer programs, outdoor conservation measures, and development of additional resources such as recycling, brackish water desalination, and seawater desalination. Additionally, MWD has approximately 1.1 million acre-feet of storage capacity available within nine regional reservoirs and more than 1.3 million acre-feet additional storage within the aqueduct and banking/transfer programs (as of 2010).<sup>4</sup>

As one of 26 member agencies of the MWD, LADWP purchases water to supplement its supplies from the City's LAA, local groundwater, and recycled water sources. LADWP will continue to rely on MWD to meet its current and future supplemental water needs, but will seek to reduce this reliance in future years. Per the 2010 LA-UWMP, LADWP intends to reduce its reliance on MWD water supplies from the current five-year average of 52 percent to a total demand of 24 percent by 2035 (under average weather conditions).<sup>5</sup> In addition, LADWP is participating in MWD's Water Surplus and Drought Management Plan in order to acquire its drought supplies from MWD in the future.

The amount of water that MWD will be able to supply to southern California in the near future is unclear given recent and ongoing federal court decisions (e.g., Natural Resources Defense Council et al. v. Kempthorne et al.). In Spring 2007, various environmental groups sought to halt the operation of water pumps in the Sacramento-San Joaquin River Delta (the Delta) to protect the Delta smelt and other endangered fish species living in the Delta. In May 2007, a federal court invalidated the Biological Opinion issued by the U.S. Fish and Wildlife Service, which had concluded that the Delta smelt were in "no jeopardy" from operational changes of the SWP in the Delta. On May 31, 2007, the California Department of Water Resources (DWR), which oversees and manages the SWP, voluntarily shut down SWP pumps for 17 days in an effort to protect the Delta smelt. That was followed in August 2007 by an oral decision of the same federal court to institute interim protective measures that restrict water operations in the Delta, including reducing the amount of water being pumped out of the Delta between the end of December and June. In December 2007, the federal court issued an interim remedial order, requiring the U.S. Fish & Wildlife Service to revise its Biological Opinion by September 15, 2008 and conditioning Delta operations on various requirements.

Subsequently, five fish species residing in the Delta have been listed as endangered and as a result, SWP exports and pumping operations from the Delta have been significantly curtailed. The Department of Water Resources prepared a Water Allocation Analysis in 2010 indicating that MWD could receive 0.15 to 0.20 million AFY less water than forecast for 2010 under average hydrologic conditions. LADWP indicates that these reductions represent a 10 to 15 percent reduction of the approximately 1.2 million AFY of water that MWD previously obtained from the SWP. Litigation remains ongoing while progress toward a long-term solution is

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<sup>4</sup> Los Angeles Department of Water and Power. 2011. *2010 Urban Water Management Plan*, Exhibit 8C, 3 May 2011 <[https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?\\_adf.ctrl-state=18pb7t1oha\\_29&\\_afLoop=110879001935000](https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?_adf.ctrl-state=18pb7t1oha_29&_afLoop=110879001935000)>.

<sup>5</sup> Los Angeles Department of Water and Power. 2011. *2010 Urban Water Management Plan*, Page 163, 3 May 2011 <[https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?\\_adf.ctrl-state=18pb7t1oha\\_29&\\_afLoop=110879001935000](https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?_adf.ctrl-state=18pb7t1oha_29&_afLoop=110879001935000)>.

reached. Therefore, the full extent of the Natural Resources Defense Council's impact on MWD's ability to supply water to southern California is still uncertain.

At present, both the California State government and MWD are evaluating Delta operations and options to address Delta smelt impacts and other environmental concerns. The Governor's Delta Vision Process and the Bay-Delta Conservation Plan are both focused on finding and implementing long-term solutions for the Delta. MWD is also actively engaged in improving Delta water operations. In May 2007, MWD's Board adopted a Delta Action Plan as a framework 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 implement measures to reduce fishery and earthquake related risks, such as aggressive monitoring, ecosystem restoration, local water supply projects, and emergency preparedness and response plans.

In response to recent developments in the Delta, MWD is also engaged in identifying solutions that, when combined with the rest of its supply portfolio, will ensure a reliable long-term water supply for its member agencies. In the near-term, MWD will continue to rely on the plans and policies outlined in its Regional Urban Water Management Plan (RUWMP) and Integrated Water Resources Plan (IWRP) to address water supply shortages and interruptions (including potential shut downs of SWP pumps) to meet water demands. Campaigns for voluntary conservation, curtailment of replenishment water, and agricultural water delivery are some of the actions outlined in the RUWMP. If necessary, reduction in municipal and industrial water use and mandatory water allocation could be implemented.

Nonetheless, the LA-UWMP reports that MWD forecasts 2015 supply availability (for service to all its members) of 3.49 million acre-feet under its current programs. This supply could be expanded to a total of 4.26 million acre-feet with implementation of water storage and supply programs scheduled for development. Even under current programs and conditions, MWD anticipates a water surplus of more than 1.0 million acre-feet.<sup>6</sup>

Water Conservation and Recycling – In order to meet future water demands, water conservation and recycling will continue to play an important role. LADWP has implemented water conservation and recycling measures with efforts to further promote such programs and integrate their application more broadly. LADWP is committed to increasing the percentage of the City's water demand that is met through water conservation and recycling.

LADWP encourages water conservation through multiple measures, including a tiered pricing system, weather sensitive irrigation controllers, low flow toilets, and water saving showerheads, as well as a rebate program encouraging residential customers to purchase high efficiency clothes washers. Moreover, there are a number of City ordinances in place mandating water conservation (e.g., requiring the installation of low-flow showerheads and toilets for all

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<sup>6</sup> Los Angeles Department of Water and Power, *2010 Urban Water Management Plan*, Exhibit 8R, 3 May 2011 <[https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?\\_adf.ctrl-state=18pb7t1oha\\_29&\\_afLoop=110879001935000](https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?_adf.ctrl-state=18pb7t1oha_29&_afLoop=110879001935000)>.

properties; requiring water-efficient landscaping for all new construction; prohibiting hose washing of paved surfaces; and imposing watering restrictions on turf that exceeds three acres).<sup>7</sup>

**(2) Existing Water Demand**

The City's annual water demand is anticipated to be 710,800 AFY by 2035, an increase of 96,000 AFY from 2015 demand levels of 614,800 AFY. LADWP anticipates adequate water supplies will be available to service the City and its customers, contingent to normal, single-dry and multiple-dry year conditions forecast through 2035.

**(3) Water Treatment, Storage and Conveyance**

Strategic and well-managed water storage is essential to ensure that LADWP can maintain a consistent water supply during high demand conditions and for firefighting and emergencies. The City water system includes 110 tanks and reservoirs ranging in size from 10,000 to 60 billion gallons in size, with a total collective capacity of 109 billion gallons. Water is distributed through a network of 7,200 miles of water mains ranging from 4 inches to 120 inches in diameter. Because of the size and range in City-wide elevations, the water system is divided into 102 pressure zones, with approximately 90 booster pumping stations to ensure water service at higher elevations.<sup>8</sup>

The primary water treatment plant serving the general Los Angeles area, including the Project Site, is the Los Angeles Filtration Plant (LAFP). The LAFP experiences an average flow of 450 million gallons per day (mgd) in non-summer months and 550 mgd during summer months, with an overall design capacity of 600 mgd. With an annual average flow of 475 mgd, the LAFP has a remaining capacity of 125 mgd (approximately 21 percent). LADWP does not have any plans for expansion of water treatment facilities at this time.

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<sup>7</sup> City of Los Angeles, *The Water Conservation Plan of the City of Los Angeles*, Chapter XII, 2007 (as amended). *Official City of Los Angeles Municipal Code, Sixth Edition (LAMC)*. Cincinnati, OH: American Legal Publishing Corp, 6 June 2008

<[http://www.amlegal.com/nxt/gateway.dll?f=templates&fn=default.htm&vid=amlegal:lamc\\_ca](http://www.amlegal.com/nxt/gateway.dll?f=templates&fn=default.htm&vid=amlegal:lamc_ca)>.

<sup>8</sup> City of Los Angeles, L.A. CEQA Thresholds Guide, 2006.

#### (4) *Local Site Conditions*

Existing Site Water Consumption – Water demand and consumption at the Project Site, including operation of the golf course, driving range, tennis court facilities, and clubhouse, is estimated to be approximately 112,900 gallons per day or 126.61 AFY.<sup>9 10</sup> As an isolated component, the water demand from the tennis court facilities, which will be removed for the Project, is based on a factor of 0.0192 gallons per day per square foot (or 7 gallons per year per square foot)<sup>11</sup>, resulting in an estimated water demand of 3,781 gallons per day or 4.24 AFY.<sup>12</sup>

Local Lines – Water is conveyed by a local system of water mains and lines that serve the community and the Project Site. Specifically, the Project Site is currently served by a 6-inch LADWP water main beneath Whitsett Avenue.<sup>13</sup> There are no other water mains in the area that would be expected to serve this Project and Project Site.

In addition to providing domestic water service, the LADWP also provides water for firefighting services in accordance with the Fire Code of the City of Los Angeles Municipal Code (LAMC). Fire flow requirements are closely related to land use, as the amount of water necessary for fire protection varies with the type of development found in the immediate community and the development itself. The existing fire flow capacity for the Project Site is 1,500 gallons per minute with a residual static water pressure of 150 pounds per square inch (psi) to remain in the pipes in the Project area while the appropriate fire flow is streaming.<sup>14</sup>

#### **b. Regulatory and Policy Setting**

##### (1) *California Water Planning and Regulations*

California Urban Water Management Planning Act – The California Urban Water Management Planning Act (Water Code § 10610 et. seq.) (UWMP Act), addresses several State policies regarding water conservation and the development of water management plans to ensure the efficient use of available supplies. The UWMP Act also requires water suppliers, which serve

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<sup>9</sup> City of Los Angeles, L.A. CEQA Thresholds Guide, Exhibit M.2-12, 2006. Water generation rates are 120% of the wastewater generation rates in Exhibit M.2-12. The clubhouse was classified as a “Commercial Use” with a water consumption rate of 0.08 gpd/sf (120% of the final number for wastewater generation). Rates for tennis courts are not provided in the Exhibit, but provided through the U.S. Department of Energy (see footnote 11).

<sup>10</sup> Golf Course Superintendents Association of America and National Golf Foundation, *Golf Course Environmental Profile Measures Water Use, Source, Cost, Quality, and Management and Conservation Strategies*, <<http://bucketurf.osu.edu/pdf/profile.pdf>>, 29 January 2009. Since golf courses and driving ranges do not produce wastewater, water generation rates could not be determined from the L.A. CEQA Thresholds Guide. As such, a total consumption of 99.7 AFY (or 11.1 AFY per hole) was used, which represents the average annual water usage of a 9-hole golf course in the southwest region of the United States under normal weather conditions. The driving range is approximately the length of two golf holes on the golf course. As such, a total consumption of 22.2 AFY was used for the driving range, although it is likely the driving range uses much less water for maintenance.

<sup>11</sup> U.S. Department of Energy, *Buildings Database*, <<http://eere.buildinggreen.com/site.cfm?ProjectID=282>>, accessed 1 October 2012. A factor of 7 gallons per year per square foot is based on comparative water use data for Challengers Tennis Club, and is a collective average for water use that includes irrigation, flush toilets, water fountains and court maintenance.

<sup>12</sup> Based on 196,950 square feet or area for Lot 2.

<sup>13</sup> City of Los Angeles, Department of Public Works, Substructure Map SUB-7347

<sup>14</sup> Captian Souter, Los Angeles Fire Department, Station No. 78, personal communication, 6 September 2012.

more than 3,000 customers or provide more than 3,000 AFY of water, to develop UWMPs that evaluate the purveyor's water supplies and demands for a 20-year period (Water Code Section 10620). Among other requirements, the UWMP Act requires purveyors to identify existing water supplies and demands; project future supplies and demands for the next 20 years; assess such supplies and demands during dry years; describe all water supply projects and programs that may be undertaken by the purveyor; and formulate a water shortage contingency plan (Water Code Section 10631). The UWMP Act requires that UWMPs be updated every five years. UWMPs provide valuable information that can be used in the land use planning process and enable cities to gauge the availability of water supplies to support development projects within their boundaries.

In 1995, the California legislature passed, and Governor Wilson signed into law, Senate Bill (SB) 901 (Costa) which is codified as Part 2.10 (§ 10910 et seq.) of the California Water Code. This statute provides that environmental impact reports for certain development projects must address the availability of water for a project.

SB 610 and SB 221 – Additional legislation was enacted as of January 2002 that placed further requirements upon water purveyors. Senate Bill (SB) 610 (Costa) amended Part 2.10 of the Water Code regarding water supply availability. SB 221 (Kuehl) amended the Subdivision Map Act, requiring that a public water system must provide written verification of sufficient water supply prior to approval of a new subdivision of property of more than 500 dwelling units prior to approval of a tentative or parcel map.<sup>15</sup> These amendments require generally that retail water providers demonstrate that sufficient and reliable sources are available in order for local agencies to evaluate large scale developments and complete the environmental review process. Both SB 610 and SB 221 became effective January 1, 2002.

SB 610, codified as Section 10910 et seq. in the California Water Code, describes requirement for both water supply assessments and Urban Water Management Plans applicable to the California Environmental Quality Act (CEQA) process. SB 610 requires that for specified projects subject to CEQA, the urban water supplier must prepare a water supply assessment to determine whether the anticipated water demand associated with a proposed project has been included and contemplated as part of the most recently adopted UWMP. Specifically, a water supply assessment shall identify existing water supply entitlements, water rights, or water service contracts held by the public water system, and prior years' water deliveries received by the public water system. Additionally, it must address water supplies over a 20-year period and consider average, dry, and multiple-dry years.

In particular, SB 610 requires cities and counties to request specific information regarding water supplies from the public water systems that would serve any project that is subject to CEQA and is defined as a "project" in Water Code Section 10912, and to include this information in

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<sup>15</sup> The proposed Project involves development on 200 dwelling units, which is less than the 500 dwelling unit threshold for SB 221. Accordingly, SB 221 does not apply to the Project.



environmental review documents prepared pursuant to CEQA.<sup>16</sup> Projects meeting the following criteria must prepare a Water Supply Assessment:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A proposed hotel or motel, or both, having more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- A mixed-use project that includes one or more of the projects specified above; or
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

In accordance with SB 610 and Section 10912 of the California Water Code, a residential development project that is subject to CEQA and proposes more than 500 dwelling units (or water use equivalent to or greater than 500 dwelling units) would require preparation and submittal of a water supply assessment. Because the proposed SCSLC Project is limited to 200 dwelling units, a water supply assessment is not required under this provision. When required, the water supply assessment must be approved by the applicable public water Board and incorporated into the CEQA document.

Under SB 610, an urban water supplier must prepare and periodically update a UWMP, which in turn describes the water supply projects and programs that may be undertaken to meet the total project water use of the service area. Special informational provisions are required when groundwater is identified as a component of the water supply.

SB 221 addresses water supply in the land use planning process and focuses on new residential subdivisions in non-urban areas. SB 221 requires that written verification from the water service provider be submitted indicating sufficient water supply is available to serve a proposed subdivision, or the local agency shall make a specified finding that sufficient water supplies are (or will be) available prior to completion of a project. SB 221 specifically applies to residential subdivisions of 500 units or more. In addition, Government Code Section 66473.7(i) exempts

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<sup>16</sup> The Project does not fall within the purview of SB 610 because the Project involves development of 200 dwelling units that are consistent with community-wide growth and housing goals. The Project would need to provide 500 units or more in order to fall within the California Water Code's definition of "project." Cal. Water Code § 10912(a)(2).

residential projects that are proposed on a site within an urbanized area and that has been previously developed for urban uses or which qualify as infill development sites.

California Code of Regulations – Title 20, Section 1605.1(h) and (i) of the California Code of Regulations (CCR) establish efficiency standards (i.e., maximum flow rates) for all new federally-regulated plumbing fittings and fixtures, including showerheads and lavatory faucets. For example, the maximum flow rate for showerheads and lavatory faucets are 2.5 gallons per minute (gpm) at 80 pounds per square inch (psi) and 2.2 gpm at 60 psi, respectively. Section 1605.3(h) establishes State efficiency standards for non-federal regulated plumbing fittings, including commercial pre-rinse spray valves.

## **(2) *Los Angeles Region and City of Los Angeles Water Planning***

The UWMP Act (see discussion above) requires every municipal water supplier who serves more than 3,000 customers or provides more than 3,000 AFY of water to prepare, and update every 5 years, an UWMP. Complying with that statute, LADWP's UWMP (LA-UWMP) includes estimates of past, current, and projected potable and recycled water use, identifies conservation and reclamation measures currently in place, describes alternative conservation measures, and provides an urban water shortage contingency plan. The LA-UWMP details LADWP's efforts to promote the efficient use and management of its water resources. The LA-UWMP utilized a service area-wide method in developing its projected water demand. This methodology does not rely on individual development demands to determine area-wide growth; rather, the demand is based on service area growth. LADWP updates the LA-UWMP every five years to account for changing conditions. The LA-UWMP projects water supply and distribution needs based on anticipated growth in population, housing, and employment per SCAG forecasts, and identifies water supply strategies to meet this demand. LADWP currently expects to have adequate water supplies for all anticipated development in the City. The LA-UWMP is available on the LADWP's website<sup>17</sup>, or by contacting the Department of City Planning or Department of Water and Power.

In the next LA-UWMP update (for 2015 and each successive five years), LADWP will develop a revised demand forecast that will factor in the water demand for which all water supply assessments have been prepared in addition to future demands based on growth. This will allow LADWP to work collaboratively with its supplemental water suppliers and the MWD, and to ensure that the City's anticipated water demands are incorporated into MWD's regional long-term water resources development plan.

City of Los Angeles Ordinances Nos. 172,075 and 163,532 – The City of Los Angeles adopted several ordinances in an effort to reduce water consumption. Specifically, the City of Los Angeles Ordinance No. 172,075, adopted in 1998 (Chapter XII, Article II, of the LAMC), requires all building owners to install low-flow showerheads (with a maximum flow of 2.5 gpm), water closets (with a maximum flow of 3.5 gpm), and urinals (with a maximum 1.5 gallons per flush) prior to obtaining building/occupancy permits. City Ordinance No. 163,532 (Chapter XII,

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<sup>17</sup> The LA-UWMP is available on LADWP's website at <[https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?\\_adf.ctrl-state=18pb7t1oha\\_29&\\_afLoop=110879001935000](https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?_adf.ctrl-state=18pb7t1oha_29&_afLoop=110879001935000)>

Article IV, of the LAMC) requires a 10 percent reduction in irrigation water use for large turf areas (i.e., turf areas of three acres or more).

### **(3) *Global Warming and Climate Change***

Global warming and climate change should be considered in assessing water supply in California. Potential impacts of climate change in California's water resources include changes in water and air temperature, changes in precipitation patterns, and changes in sea levels that could increase pressure on Delta levees. The impact of climate change on California's water supply has already been the subject of study. California Department of Water Resources prepared a July 2006 report entitled "Progress on Incorporating Climate Change into Management of California's Water Resources," which found that climate change may have a significant effect on California's future water resources and demand. This report also examined the potential impacts of selected climate change scenarios on operation of the SWP and Central Valley Project, Delta water quality, flood management, and evapotranspiration. Potential issues include a reduction of Sierra snow pack and seasonal water storage; increased rain and less snow impacting supply reliability and hydropower generation; increased variable precipitation and extreme weather events; and rising sea levels.

While climate change is expected to continue for at least several decades, the magnitude and nature of future changes are uncertain. This uncertainty serves to complicate the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood.<sup>18</sup> Based on this information, global climate changes and their potential effects on California's water supply are too speculative at this time for further evaluation.

LADWP also addresses climate change in the LA-UWMP. LADWP is currently conducting studies and monitoring research on the potential impacts of climate change on its water supply. However, LADWP has concluded that, at present, there is still general uncertainty within the scientific community regarding the potential impacts of global warming on the City's water supply. Because of this uncertainty, the City has determined that the potential impact of climate change on water supply is too speculative to conduct a quantitative evaluation of climate change impacts. Therefore, pursuant to CEQA Guideline Section 15145, this EIR does not, and is not required to, provide further discussion of impacts related to water supply in the context of climate change.

### **(4) *Water Conservation Planning and Requirements***

In addition to State regulations, LADWP has instituted its own water conservation measures. As described in LA-UWMP, water use in the City of Los Angeles is currently equal to water use from approximately 20 years ago, even though the population has increased by over 750,000

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<sup>18</sup> Roos, Maurice. 2005 (December). *Accounting for Climate Change*, California Water Plan Update 2005, Volume 4. California Department of Water Resources. 2005. 6 June 2008  
<<http://www.waterplan.water.ca.gov/docs/cwpu2005/vol4/vol4-globalclimate-accountingforclimatechange.pdf>>.

persons during this period.<sup>19</sup> The stabilization in water use is attributed to the City's public education campaigns and water conservation programs over the past 15 years. LADWP continues to develop cost-effective programs to achieve its multiple goals of demand reduction, customer service, and environmental responsibility. The conservation program falls under five categories: awareness/support, residential, commercial/industrial/institutional, landscape, and system maintenance measures.

As noted above, the City of Los Angeles Municipal Code also mandates certain water conservation practices. Further, the proposed River Improvement Overlay District (RIO District) Ordinance will require that all new developments within 2,500 feet of the Los Angeles River meet certain performance standards aimed to protect the watershed, promote groundwater recharge, enhance water quality, and conserve water use. The proposed Project's compliance with the RIO is discussed in *Section IV.H: Environmental Impact Analysis – Land Use and Planning* of this Draft EIR.

### **3. ENVIRONMENTAL IMPACTS**

#### **a. Methodology**

Project water demand is estimated based on accepted published water factors, which are then compared with available know water supplies as documented through the LA-UWMP.

#### **b. Thresholds of Significance**

In accordance with Appendix G to the State CEQA Guidelines, the Project would have a significant impact on water supply and water resources if it would cause any of the following conditions to occur:<sup>20</sup>

- (a) A project would require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause a significant environmental effect; or
- (b) If there were insufficient water supplies available to serve the project from existing entitlements and resources, and new or expanded facilities were needed.

Furthermore, as set forth in the City of Los Angeles L.A. CEQA Thresholds Guide, the determination of significance shall be made on a case-by-case basis, considering the following:

- (a) The total estimated water demand for the project;

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<sup>19</sup> Los Angeles Department of Water and Power. 2011. *2010 Urban Water Management Plan*. 3 May 2011 <[https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?\\_adf.ctrl-state=18pb7t1oha\\_29&\\_afLoop=110879001935000](https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?_adf.ctrl-state=18pb7t1oha_29&_afLoop=110879001935000)>.

<sup>20</sup> State of California, *California Environmental Quality Act: Guidelines*, [http://ceres.ca.gov/topic/env\\_law/ceqa/guidelines](http://ceres.ca.gov/topic/env_law/ceqa/guidelines) (May 2012).

- (b) Whether sufficient capacity exists in the water infrastructure that would serve the project, taking into account the anticipated conditions at project buildout;
- (c) 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
- (d) The degree to which scheduled water infrastructure improvements or project design features would reduce or offset service impacts.

In addition, a project would normally have a significant impact on groundwater level if it would:

- (a) Change potable water levels sufficiently to:
  - Reduce the ability of a water utility to use the groundwater basin for public water supplies, conjunctive use purposes, storage of imported water, summer/winter peaking, or to respond to emergencies and drought; or
  - Reduce yields of adjacent wells or well fields (public or private); or
  - Adversely change the rate or direction of flow of groundwater; or
- (b) Result in demonstrable and sustained reduction of groundwater recharge capacity.

**c. Project Impacts**

The proposed Project includes replacement of 16 existing tennis courts and related facilities with 200 multiple-family units intended for senior residents. The analysis generally assumes that the Project will incorporate a series of measures that will reduce water consumption and resulting wastewater. These include implementation of “smart irrigation” systems that are customized to control water and accommodate specific plant areas, based on information from weather forecasts. The Project will also include water conservation through installation of efficient plumbing fixtures including low flow and dual flush toilets, waterless urinals, and on touch faucets with short “on” cycles and efficiency aerators.

Further, the analysis assumes that the Project will be constructed and operated in accordance with all applicable codes, regulations and standard practices, including Title 20 and Title 24 of the California Code of Regulations, which establish various conservation standards, including standards that relate to water conservation and the protection of water resources. The Project will be consistent with State requirements for water conservation standards.

**(1) Water Supply**

A project would have a significant environmental impact if sufficient water supplies were not available to serve the project from existing entitlements and resources, or if new or expanded entitlements were needed.

According to the LA-UWMP, water demand Citywide in 2010 was approximately 555,500 AFY.<sup>21</sup> This represents a reduction of just over 100,000 AFY from the 2005 recorded demand of approximately 661,000 AFY. The reduction is attributed to progress of Citywide conservation programs coupled with three years of economic recession. For fiscal year 2009-10, the water demand equated to an approximate 117 gpd per capita. The proposed Citywide demand for 2015 is expected to be approximately 614,800 AFY.

The Project will build 200 multiple-family units of which 136 units will have two bedrooms and 64 units will have one bedroom. The Project Site is currently occupied by the Weddington Golf & Tennis Club and its related buildings. The tennis courts and related facilities will be removed to accommodate the new dwelling units on proposed Lot 2 of the Project Site. As noted above, water usage associated with the tennis courts is estimated at 3,781 gallons per day or 4.24 AFY. The golf course and associated driving range, clubhouse, and other support facilities will remain relatively unchanged, and as such, water usage for the golf course, driving range, and clubhouse portion of the Project Site is anticipated to remain unchanged from current conditions.

In order to present a conservative analysis, water consumption is assumed to be 120 percent of the wastewater generated for the proposed land use. The proposed senior housing Project would generate a water demand of 36,000 gallons per day (gpd) or approximately 40.35 AFY.<sup>22</sup>

The tennis courts and their related facilities, which would be removed from the Project Site, currently generate a water demand that is estimated at 4.24 AFY. As such, there will be a net increase in water usage on the Project Site, due to the removal and replacement of the existing recreational uses with new residential uses. The anticipated net increase in water usage at the Project Site would be 36.11 AFY. The current water usage represents nearly 10 percent of the future projected water usage. In order to keep a conservative analysis for water resources, the factor of current water usage will not be considered. The proposed Project water supply impacts are evaluated as though no previous water usage occurs at the Project Site. In addition, although the Project will use water to control fugitive dust during construction and demolition, that amount is negligible, non-substantial, and short-term.

The increase in water demand during occupancy of the Project would be approximately (conservative worst-case) 40.35 AFY. Based on the LA-UWMP's projected Citywide water demand, the City's total water needs will be approximately 614,800 AFY in 2015, which will be substantially similar to 2016 (the year of Project buildout). The Citywide demand will increase to 710,800 AFY in 2035 (for average dry years). The LA-UWMP concludes that LADWP will be able to meet the increasing demand through 2035 to accommodate anticipated growth (as projected through SCAG growth forecast numbers).

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<sup>21</sup> Los Angeles Department of Water and Power. 2011. *2010 Urban Water Management Plan*. 3 May 2011 <[https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?\\_adf.ctrl-state=18pb7t1oha\\_29&\\_afzLoop=110879001935000](https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?_adf.ctrl-state=18pb7t1oha_29&_afzLoop=110879001935000)>.

<sup>22</sup> Assumes approximately 120% of wastewater generation. Based on the City of Los Angeles Wastewater Program Management, Sewer Facilities Charge Guide and Generation Rates, August 1988. This Guide provides the following generation rates for the Project: 150 gpd per senior living dwelling unit.

The projected water demands in the LA-UWMP already take into account existing and projected land uses, including expansion of housing opportunities consistent with the City's Housing Element, such as the proposed Project, which would be accommodated by the LADWP through the year 2035, as set forth in the LA-UWMP.<sup>23</sup>

Although the Project Site is currently designated under the General Plan and Community Plan as "Open Space", implementation of the Project would not cause the Community Plan Area to exceed the projected growth in population or housing for the year of Project occupancy or buildout.<sup>24</sup> Refer to *Section IV.H: Environmental Impact Analysis – Land Use and Planning* and *Section IV.J: Environmental Impact Analysis – Population and Housing* of this Draft EIR. Since the projected water supply is based on the growth projections from SCAG in the City's General Plan, which are used in the LA-UWMP, and the Project is consistent with the General Plan and Community Plan designations, the Project will fit within the water demand projections.

Finally, the LA-UWMP analyzes water supply during both normal and dry years and concludes LADWP will have sufficient water supplies to serve the water needs of its service area, which would include the Project Site, during normal and drought conditions through access to surplus supplies and emergency conservation measures. The Project would not cause an increase in water usage beyond the projections in the LA-UWMP.

Because the LA-UWMP anticipates potential development in the Project area and demonstrates that sufficient water supplies are available, the proposed Project will result in a less-than-significant impact to water supply. Even so, due to statewide drought conditions, there is an ongoing need for water conservation. The LADWP recommends that water should be conserved at all times because efficient use of water allows increased water for use in dry years and makes water available for beneficial environmental uses. As such, the Project would comply with Title 24 requirements.

As discussed above, SB 610 requires specific information regarding water supplies for projects meeting the criteria defined in Water Code Section 10912. Projects meeting the criteria must prepare a Water Supply Assessment (WSA) and provide such information as part of the CEQA process. A WSA would be required if the Project would include more than 500 dwelling units. However, the proposed Project would result in the net addition of 200 senior living dwelling units, and as such, will not exceed the above criteria. Therefore, a WSA is not required for the Project.

LADWP has stated that water requirements for any project that is consistent with the City's General Plan have been taken into account as part of the planned cumulative growth used to forecast water demand. As such, sufficient water supplies are available to accommodate the proposed Project. Further, the LADWP has indicated in its LA-UWMP that it will provide an

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<sup>23</sup> Los Angeles Department of Water and Power. 2011. *2010 Urban Water Management Plan*. 3 May 2011 <[https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?\\_adf.ctrl-state=18pb7t1oha\\_29&\\_afzLoop=110879001935000](https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?_adf.ctrl-state=18pb7t1oha_29&_afzLoop=110879001935000)>.

<sup>24</sup> City of Los Angeles, L.A. *CEQA Thresholds Guide*. Section M.1.C, 2006, Los Angeles, CA: Author. 6 June 2008 <<http://www.lacity.org/ead/EADWeb-AQD/thresholdsguide.htm>>.

adequate water supply to meet current and future growth until at least 2035.<sup>25</sup> Finally, LADWP does not have any known water service problems in the area and the LAFP, which serves the Project Site, has adequate capacity to handle the Project. Therefore, impacts to water supply would be less-than-significant.

## (2) *Consistency with Adopted Plans and Policies*

Consistency with applicable plans and policies, including land use and design policies which indirectly address water resources and supply, is discussed in detail in *Section IV.H: Environmental Impact Analysis – Land Use and Planning* of this Draft EIR.

### **d. Cumulative Impacts**

The ten Related Projects evaluated in this cumulative impact analysis are comprised of the planned or projected development identified in the Related Projects list (see *Table III-1: List of Related Projects* earlier in this Draft EIR).

With respect to potential cumulative impacts to water provisions, based on the uses identified and not accounting for demolition of existing uses as part of the Related Projects (which would result in water demand reductions), the ten Related Projects could result in an increase in water demand of approximately 193,918 gpd,<sup>26</sup> which, based on a conservative estimate of a seven-day-a-week operation, could result in approximately 217.4 AFY of additional water demand. According to the LA-UWMP, water demand Citywide in 2010 was approximately 555,500 AFY.<sup>27</sup> The proposed Citywide demand for 2015 is expected to be approximately 614,800 AFY and 710,800 AFY in 2035, and the LA-UWMP concludes that LADWP will have sufficient supply to meet anticipated demand through the year 2035. Moreover, as the anticipated Related Projects are already planned for in the City's General Plan, SCAG's population projections, and the LA-UWMP, these Related Projects' additional demand of 217.4 AFY will not be cumulatively considerable, resulting in a less-than-significant impact. Additionally, the SCSLC Project's addition of 40.35 AFY of water demand to the Project Site represents approximately 18.6% of water demand from the Related Projects, which is not a considerable contribution to the cumulative water demand. Consequently, the proposed Project will result in a less-than-significant cumulative impact to water supply and infrastructure, and as such, no Mitigation Measures are required.

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<sup>25</sup> Los Angeles Department of Water and Power. 2011. *2010 Urban Water Management Plan*. 3 May 2011 <[https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?\\_adf.ctrl-state=18pb7t1oha\\_29&\\_afLoop=110879001935000](https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?_adf.ctrl-state=18pb7t1oha_29&_afLoop=110879001935000)>.

<sup>26</sup> Similar to the Project's water demand estimation, the water demand for Related Projects was determined by taking 120% of their wastewater generation as determined by the wastewater generation factors in Exhibit M.2-12 of the L.A. CEQA Thresholds Guide. Categories of uses in the Exhibit (bank, residential, restaurant, school, etc.) were appropriately assigned to the Related Projects. All residential apartments and condominiums were assumed to contain an average of two bedrooms for purposes of calculation. For all Related Project uses that could fit into more than one use category, the highest demand factor was used for worst-case purposes.

<sup>27</sup> Los Angeles Department of Water and Power. 2011. *2010 Urban Water Management Plan*. 3 May 2011 <[https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?\\_adf.ctrl-state=18pb7t1oha\\_29&\\_afLoop=110879001935000](https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water?_adf.ctrl-state=18pb7t1oha_29&_afLoop=110879001935000)>.



#### **4. COMPLIANCE MEASURES, PDFS, AND MITIGATION PROGRAM**

##### **a. Compliance Measures**

The following Compliance Measures are reasonably anticipated standard conditions that are based on local, State, and federal regulations or laws that serve to offset or prevent specific water resource impacts. These Compliance Measures are applicable to the proposed Project and shall be incorporated to ensure that the Project has minimal impacts to surrounding uses:

- The Applicant shall be required to submit a Landscape Plan for City review and approval. Such review will ensure that the Project conforms to the City's policies and guidelines for compatible plantscape and hardscape materials, including those related to non-invasive and LA River compatible species as required under the RIO.
- The Project shall comply with all Water Closet, Urinal, and Showerhead Regulations in the LAMC.
- The Project shall comply with Title 20 (Public Utilities and Energy) and Title 24 (Building Standards Code) of the California Code of Regulations.

##### **b. Project Design Features (PDFs)**

The following PDFs are specific design and/or operational characteristics included to avoid or reduce potential water resource impacts:

PDF UTW-1: The landscaping for the Project shall use water efficient landscaping and native drought tolerant plants.

PDF UTW-2: The Project shall utilize recaptured or reclaimed water for at least 50% of the irrigation needs on proposed Lot 2 of the Project Site.

##### **c. Mitigation Measures**

The Project will result in less-than-significant water resource impacts, both Project-specific and cumulatively. Therefore, Mitigation Measures are not required.

#### **5. LEVEL OF SIGNIFICANCE AFTER MITIGATION**

With implementation of all required Compliance Measures, as well as PDFs, the Project will result in less-than-significant impacts to water supply or water delivery infrastructure. No Mitigation Measures are required since impacts related to water supply and delivery are already less-than-significant as a result of the proposed Project.