

# Water Supply Assessment

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**WATER SUPPLY ASSESSMENT**

**FOR THE PORT OF LOS ANGELES**

**BERTHS 302-306 [APL] CONTAINER TERMINAL**

**PROJECT**

Prepared by:  
Water Resources Division

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## Appendices

- A. The Los Angeles Harbor Department letter, dated October 13, 2010, Request for a Water Supply Assessment, and confirmation e-mail dated February 3, 2011.
- B. Water Conservation Commitment Letter
- C. Project Location Maps
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- E. Water Supply Assessment Provisions – California Water Code Section 10910-10915
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## Introduction

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Proposed major projects subject to certain requirements in the California Water Code require that the City or County identify any public water system that may supply water to the proposed project and request the public water system to determine whether the projected water demand associated with the proposed project was included as part of the most recently adopted Urban Water Management Plan per California Water Code Section 10910.

The Los Angeles Harbor Department (Harbor Department), serving as the lead agency as prescribed by the California Environmental Quality Act (Public Resources Code Section 21000 et seq.), for the proposed Port of Los Angeles Berths 302-306 [APL] Container Terminal Project (Project), has identified the Los Angeles Department of Water and Power (LADWP) as the public water system that will supply water to the Project. In response to the Harbor Department's request for a Water Supply Assessment, LADWP has performed the assessment contained herein.

LADWP has served the City of Los Angeles (City) a safe and reliable water supply for over a century. Over time, the City's water supplies have evolved from primarily local groundwater to predominantly imported supplies. Today, the City relies on over 85 percent of its water from imported sources. As such, LADWP has taken an active role in regional and statewide water management. The sustainability of Los Angeles' water supplies are dependent on the City's ability to maximize water conservation and increase recycled water use. The Water Supply Action Plan (Plan), dated May 2008, states that the City will significantly develop additional water conservation and water recycling, as well as other water resource actions to ensure a reliable water supply.

This Water Supply Assessment has been prepared to meet the applicable requirements of state law as set forth in California State Water Code Sections 10910-10915. Significant references and data for this assessment are from the City's 25-year water resource plan, entitled City of Los Angeles Department of Water and Power 2005 Urban Water Management Plan (UWMP). The UWMP is incorporated by reference and is available for review through LADWP's website, [www.ladwp.com](http://www.ladwp.com).

## Findings

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The proposed Project is estimated to increase water demand within the site by approximately 25 acre feet (AF) annually based on review of information submitted by the Harbor Department. The Harbor Department has committed to implement additional measures that are beyond those required by current law.

LADWP's Water Supply Assessment finds that adequate water supplies will be available to meet the water demands of the Project. LADWP anticipates that the projected water demand from the Project can be met during normal, single-dry, and multiple-dry water years, in addition to the existing and planned future demands on LADWP.

The basis for approving Water Supply Assessments for developments is the City's UWMP. LADWP's water demand forecast as contained in the UWMP uses long-term demographic projection such as land use, population, and employment. The California Urban Water Management Planning Act requires water suppliers to develop an UWMP every five years to identify short-term and long-term water resources management measures to meet growing water demands during normal, single-dry, and multiple-dry years.

The LADWP Board of Water and Power Commissioners adopted Shortage Year Rates and the Los Angeles City Council implemented Phase III restrictions of the Water Conservation Ordinance, both of which became effective June 1, 2009. Shortage Year Rates and higher phases of the Water Conservation Ordinance are expected to remain in effect until it is determined that the water supply currently available to the City is found sufficient for normal demands. It is LADWP staff's judgment that the City's current water shortage is due to a combination of hydrological and regulatory shortages, some of which are transitory in nature. Most of the regulatory shortages are being addressed by five-year supply actions considered by the Metropolitan Water District (MWD), and the hydrological shortages experienced are consistent with historical multiple-dry year water cycles accounted for in LADWP's 2005 UWMP and MWD's comprehensive supplemental supply plan as documented in their March 25, 2003 document entitled, "Report on Metropolitan's Water Supplies", Appendix F.

The imposition of Shortage Year Rates and Phase III conservation has reduced demands consistent with what occurred in 1991, when the City first implemented water rationing and associated financial penalties for overuse. Water rationing and financial penalties began in March 1991, and remained in place until May 1992. During this period of time, customers were required to reduce water usage by 15 percent. Each customer's allotment of water was 85 percent of their historical usage. Water usage above a customer's allotment was a violation of the Ordinance and was billed at the penalty rate. This action resulted in total City water conservation of approximately 25 percent. The current implementation of Shortage Year Rates and higher phases of the Ordinance has resulted in reducing the total customer water usage, on average, by approximately 19.4-percent for the months of June 2009 through January 2011.

The anticipated water demand from the Project falls within the UWMP's projected water supplies for normal, single-dry, and multiple-dry years through the year 2030 and is within the UWMP's 25-year water demand growth projection. Therefore, the Project's Water Supply Assessment can be approved based on the fact that this Project's water need falls within the scope of the UWMP's projected increase in citywide water demands, while anticipating multi-dry year water supply conditions occurring at the same time.

## **Project Description**

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The following project information was obtained from the Harbor Department's Water Supply Assessment Request Letter and confirming email (Appendix A).

Project Name:	The Port of Los Angeles Berths 302-306 [APL] Container Terminal Project
Developer:	The Los Angeles Harbor Department
Planning Community:	Port of Los Angeles

The Project will redevelop and expand an existing site of industrial land uses for a total of approximately 347 acres within the Port of Los Angeles Community Plan and the Port Master Plan areas for industrial land uses. The proposed Project area is located on Terminal Island, within an industrial area in the Fish Harbor region of the Port of the Los Angeles. The Project site is generally bounded by Terminal Way and Seaside Avenue on the north, Pier 300 Shallow Water Habitat, Navy Way, and Sea Plane Lagoon on the east, Pier 300 Channel and the outer Los Angeles Harbor on the south, and by Earle Street and Fish Harbor on the west. The Project consists of approximately 52,620 square feet of office space, approximately 86,661 square feet of industrial space, approximately 6.2 acres of surface parking space, and approximately 2,152 peak employees (longshoremen). The Project will also remove approximately 0.8 acre of existing surface parking space.

The proposed Project is consistent with the General Plan and the Port Master Plan, as well as underlying zoning.

This Water Supply Assessment will no longer be valid if modifications to the Project require greater water demand than stated above. A revised Water Supply Assessment will then be required from the Harbor Department.

## **Project Water Demand Estimate**

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The projected water demand increase for the Project is estimated to be approximately 25 AF annually which includes annual water conservation. Table I shows a breakdown of current and proposed types of use and the corresponding estimated volume of usage with the implementation of the conservation measures for the Project. The types of use were derived from the Water Supply Assessment request letter and the scope verification e-mail in Appendix A. Table II estimates the total volume of water conservation based on conservation measures committed to by the developer (Appendix B).



TABLE I Port of Los Angeles Berths 302-306 [APL] Container Terminal Project Calculated Total Additional Water Demand						
Existing Use <sup>1</sup>	Quantity	Unit	Water Use Factor <sup>3</sup> (gpd/unit)			Existing Water Use (gpd)
Office	43,084	sf				
Industrial	60,088	sf				
Longshoremen	1,041	employee				
Parking (Surface)	4.5	acre				
<b>Existing Total<sup>2</sup></b>						<b>30,625</b>
Parking (Surface) to be Removed	34,848	sf	0.02			697
<b>Existing to be Demolished Total</b>						<b>697</b>
Proposed Use <sup>1</sup>	Quantity	Unit	Water Use Factor <sup>3</sup> (gpd/unit)	Base Demand (gpd)	Water Efficiency Requirements Ordinance Savings (gpd)	Proposed Water Demand (gpd)
<b>Proposed</b>						
Office	52,620	sf	0.15	7,893	240	7,653
Industrial	86,661	sf	0.08	6,933	292	6,640
Longshoremen <sup>4</sup>	2,152	employee	24.00	51,648	19,144	32,504
Parking (Surface)	270,072	sf	0.02	5,401		5,401
<b>Proposed Water Demand Total</b>						<b>52,199</b>
Less Existing Total						-30,625
Existing to be Demolished Total						697
Less Additional Conservation <sup>5</sup>						-73
<b>Net Additional Water Demand =</b>						<b>22,198 gpd 25 af/y</b>

<sup>1</sup> Provided by the Los Angeles Harbor Department.

<sup>2</sup> Based on existing water usage record (Year 2008) for the entire project area obtained from the Los Angeles Department of Water and Power.

<sup>3</sup> Based on City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table. Uses not listed are estimated by the closest type of use available in the table.

<sup>4</sup> Longshoremen's water use factor is based on the City of Los Angeles Department of Public Works, Bureau of Sanitation's per capita wastewater generation for employees. Longshoremen's water conservation is estimated by assuming 4 urinal uses, 1 toilet use, and 5 hand washes per day per employee.

<sup>5</sup> Water conservation due to additional conservation commitments agreed by the Los Angeles Harbor Department. See Table II.

Abbreviations:

gpd - gallons per day    sf - square feet    af/y - acre feet per year    bd - bedroom    du - dwelling unit

<b>Table II</b>				
<b>Port of Los Angeles Berths 302-306 [APL] Container Terminal Project</b>				
<b>Estimated Additional Water Conservation</b>				
<b>Conservation Measures<sup>1</sup></b>	<b>Quantity</b>	<b>Units</b>	<b>Water Saving Factor<sup>2</sup></b> (gpd/unit)	<b>Water Saved</b> (gpd)
Faucet (Utility)	5	ea	10.40	52
<b>Office Conservation Total</b>				<b>52</b>
Faucet (Utility)	2	ea	10.40	21
<b>Industrial Conservation Total</b>				<b>21</b>
<b>Total Water Conserved =</b>				<b>73</b>

<sup>1</sup> Water conservation measures agreed to by the Los Angeles Harbor Department that are beyond those required by current law. See Appendix B.

<sup>2</sup> Based on LADWP estimates.

Abbreviations:

gpd - gallons per day    sf - square feet    afy - acre feet per year    bd - bedroom    du - dwelling unit  
 one acre foot = 325,850 gallons

## **Water Demand Forecast**

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The UWMP projects yearly water demand to reach 776,000 acre feet by year 2030, or an increase of 17-percent from year 2005 projections. Water demand projections in 5-year increments through 2030 are available in the UWMP for each of the major customer classes single-family, multi-family, commercial, governmental, and industrial. Demographic data from the Southern California Association of Government's 2004 Regional Transportation Plan as well as billing data for each major customer class, weather, and conservation were factors used in forecasting future water demand growth.

The UWMP used a service area-wide method in developing its water demand projections. This methodology does not rely on individual development demands to determine area-wide growth. Rather, the growth in water use for the entire service area was considered in developing long-term water projections for the City of Los Angeles through the year 2030.

The UWMP is updated every five years as required by California law. This process entails, among other requirements, an update of water supply and water demand projections for water agencies.

Efforts are underway to increase water recycling, further conserve local stormwater runoff, and expand LADWP's water conservation program to decrease reliance on imported water for future demand. The City plans to meet all future increases in water demand through a combination of water conservation and water recycling as explained in LADWP's Water Supply Action Plan.

Collaboration between LADWP and the MWD is critical in ensuring that the City's anticipated water demands are incorporated into the development of MWD's long-term

Integrated Regional Plan (IRP). MWD's IRP directs a continuous regional effort to develop regional water resources involving all of MWD's member agencies. Successful implementation of MWD's IRP has resulted in reliable supplemental water supplies for the City from MWD.

State law further regulates distribution of water in extreme dry weather conditions. Section 350-354 of the California Water Code states that when a governing body of a distributor of a public water supply declares a water shortage emergency within its service area, water will be allocated to meet needs for domestic use, sanitation, fire protection, and other priorities. This will be done equitably and without discrimination between customers using water for the same purpose(s).

## **LADWP - Water Supply Action Plan**

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In response to water supply uncertainties, including those impacting MWD, LADWP released the Water Supply Action Plan (Plan) on May 17, 2008. The plan, entitled "Securing L.A.'s Water Supply," serves as a blueprint for creating sustainable sources of water for the future of Los Angeles to reduce dependence on imported supplies. It is an aggressive multi-pronged approach that includes: investments in state-of-the-art technology; a combination of rebates and incentives; the installation of smart sprinklers, efficient washers and urinals; and long-term measures such as expansion of water recycling and investment in cleaning up the local groundwater supply.<sup>1</sup> The Plan also takes into account the realities of climate change and the necessary response to dry weather conditions.

The premise of the Plan is that the City will meet all new demand for water due to projected population growth through a combination of water conservation and water recycling. In total, the City will conserve or recycle 32.6 billion gallons of water a year.<sup>2</sup> Half of all new demand will be filled by a six-fold increase in recycled water supplies and the other half will be met through ramped-up conservation efforts.<sup>3</sup>

The Plan also specifically addresses current and future State Water Project (SWP) supply shortages. The U.S. Fish and Wildlife Service's Biological Opinion on Delta Smelt has limited MWD's exports of their anticipated SWP.<sup>4</sup> The Plan concludes, however, that MWD's actions in response to this threat will ensure continued reliability of its water deliveries. The Plan further states that "despite concerns about ongoing water shortages and higher costs, MWD has upheld its pledge to plan for emergencies and natural disasters throughout this region." MWD's calendar year 2010 non-emergency storage was 1.676 million acre-feet in surface and groundwater storage accounts - including Diamond Valley Lake near Hemet – plus an additional 626,000 acre-feet of storage reserved for emergencies. In total, this reserve of water supplies will be utilized to buffer the severity of a potential shortage.<sup>5</sup> Furthermore, by focusing on demand reduction,

<sup>1</sup> LADWP, *Securing L.A.'s Water Supply*, at 1 (May 2008).

<sup>2</sup> *Securing L.A.'s Water Supply* at 1.

<sup>3</sup> *Securing L.A.'s Water Supply* at 1.

<sup>4</sup> *Appendix G page A-6.*

<sup>5</sup> *Securing L.A.'s Water Supply* at 8.

implementation of the Plan will ensure that long-term dependence on MWD supplies will not be exacerbated by potential future shortages.

The Plan includes key short-term and long-term strategies to secure water supply described below.

## **Short-Term Conservation Strategies**

***Enforcing prohibited uses of water.*** The prohibited uses of water are intended to eliminate waste and increase awareness of the need to conserve water. While in effect at all times, the prohibited uses have not been actively enforced since the early 1990s. In November 2007, LADWP resurrected its Drought Buster (now called the “Water Conservation Team”) Program to heighten awareness and educate customers about the prohibited uses. Under enforcement, failure to comply would be subject to penalties, which can range from a written warning for a first violation to monetary fines and water service shutoff for continued non-compliance.<sup>6</sup>

***Expanding the prohibited uses of water.*** In August 2009, and again in August 2010, the City updated the Emergency Water Conservation Plan Ordinance (No. 181288) by clarifying prohibited uses of water, modifying certain water conservation requirements, and developing new phases of conservation depending on the severity of water shortages. Prohibited uses in effect at all times (Phase I) include:

- No water leaks are allowed to go unattended.
- No outdoor irrigation between the hours of 9:00 a.m. to 4:00 p.m.
- No outdoor irrigation that results in excess water flow leaving the property.
- No outdoor irrigation during rain events.
- No outdoor irrigation with spray head sprinklers and bubblers for more than 10 minutes per watering day per station.
- No outdoor irrigation with standard rotors and multi-stream rotary heads for more than 15 minutes per cycle and up to 2 cycles per watering day per station.
- No large landscape irrigation systems without automatic shutoff rain sensors.
- No washing paved surfaces (sidewalks, walkways, driveways, or parking areas) unless using a LADWP-approved water conserving spray cleaning device.
- No water for decorative fountains, ponds, or lakes unless the water is part of a recirculating system.
- No installation of single-pass cooling systems in buildings requesting new water service.
- No installation of non-recirculating systems in new commercial laundry facilities.
- No installation of non-recirculating systems in new conveyor car washes.
- No car washing with a hose, unless an automatic shut-off device is attached.
- No water served to customers in eating establishments, unless requested.
- No daily towel and linen service option must be offered to Hotel and Motel guests.

<sup>6</sup> *Id.* at 11.

Currently Phase II of the Water Conservation Ordinance is in effect. In addition to prohibited use for Phase I, Phase II conservation prohibits landscape irrigation on days other than Monday, Wednesday, or Friday for odd-numbered street addresses and Tuesday, Thursday, or Sunday for even-numbers street addresses. Watering time for non-conserving nozzles (spray head sprinklers and bubblers) is no more than 8 minutes per watering day per station. These provisions do not apply to drip irrigation supplying water to a food source or to hand-held hose watering vegetation, if the hose is equipped with a self-closing water shut-off device, which is allowed everyday during Phase II between the hours of 9:00 a.m. and 4:00 p.m.

***Extending outreach efforts.*** Over the last several years, LADWP has expanded conservation outreach and education. Some activities to promote conservation include: increased communication with ratepayers to include LADWP vehicle placards, newspapers, radio, and television, among other types of media; outreach to Homeowner Associations and Neighborhood Councils to promote water conservation; distribution of hotel towel door hangers and restaurant table tent cards; and ramping up marketing of water conservation incentive and rebate programs.<sup>7</sup>

***Encouraging regional conservation measures.*** LADWP has worked with MWD to encourage all water agencies in the region to adopt water conservation ordinances which include prohibited uses and enforcement.<sup>8</sup>

## **Long-Term Strategies**

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### **1.0 Increase water conservation through reduction of outdoor water use and new technology.**

Goal: Increase water conservation savings to 53,419 AFY by cutting back on outdoor water use, expanding rebates and incentives, improving water efficiency at public facilities, and enhancing savings through review of new developments

Water Savings: 53,419 AFY by 2030.

Action Plan:

**Conservation Rebates and Incentives:** LADWP is continuing to expand rebates and incentives for homeowners and business owners to encourage them to purchase water-saving technology.<sup>9</sup> Rebate and incentive programs include the following: High Efficiency Clothes Washers Program; Commercial Rebate Program; High Efficiency Urinal Programs. In addition, as part of the City's ongoing effort to encourage customers to adopt passive water conservation measures (i.e., measures that can help customers conserve water on a daily basis without thinking about it) in their homes and businesses, LADWP continues to distribute water-saving bathroom and

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<sup>7</sup> *Id.* at 12.

<sup>8</sup> *Id.*

<sup>9</sup> *Id.* at 14.

kitchen faucet aerators and shower heads free-of-charge. In an effort to reduce outdoor water use, LADWP launched the Residential and Commercial Drought Resistant Landscape Incentive Program in 2009. This Landscape Program pays customers \$1.00 per square foot of turf removed and replaced with drought tolerant plants, mulch, or permeable hardscapes. A similar rebate program exists for synthetic turf.

**Action by Public Agencies:** LADWP will assist City Departments and other public agencies in leveraging incentive funds to retrofit their facilities. Significant accomplishments include the following highlights:

- In January 2009, a Memorandum of Understanding was signed between LADWP and City's General Services Department (GSD) to install 600 water-efficient urinals and 250 high efficiency toilets in city facilities. By the end of June 2009, over 60 percent of these devices had been installed.
- In an effort to reduce water waste and identify areas of potential water conservation, LADWP provided on-site water audit training for GSD Plumbers, Recreation and Parks (R&P) landscapers and Port of Los Angeles (POLA) staff and conducted nearly 200 facility audits.
- Ten high-use City facilities have been retrofitted with water efficient toilets, urinals, and facets saving approximately 23 AFY. Locations include City Hall, City Hall East, Pershing Square and LADWP Headquarters.
- Utilizing a \$3 million per year grant from LADWP, R&P installed 155 smart controllers at 67 Parks, resulting in a savings of 12 percent of normal water usage.

**Enhancing Conservation through Review of New Developments:** LADWP will continue working with the City's Green Building Team to pursue desired changes in local codes and standards to promote water efficiency in new construction projects and major building renovations.<sup>10</sup> One of the significant accomplishments was the approval of Water Efficiency Ordinance by the City Council, which modifies the City Municipal Code to establish new requirements for water conservation in construction of new buildings, and the installation of new plumbing fixtures in existing buildings to minimize the effects of any water shortages on the customers of the City, effective December 1, 2009.

## 2.0 Water Recycling

The City's goal is to increase the total amount of recycled water used in the City of Los Angeles six-fold—expanding from the current 1 percent to 6 percent of annual water demand. This will result in a planned water savings of 50,000. In order to achieve this goal, the City will take the following actions:

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<sup>10</sup> *Id.* at 21.

**Develop a Recycled Water Master Plan.** In 2009, LADWP began a detailed Recycled Water Master Plan that will outline the steps and costs of boosting the City's recycled water level to 6 percent of total demand for the City and concepts for going beyond 6 percent. The Master Plan will provide a blueprint for reaching this goal by expanding the existing recycled water pipeline system and using recycled water for groundwater replenishment.<sup>11</sup>

**Increase Recycled Water for Irrigation and Industrial Use.** LADWP's current Water Recycling capital budget provides funding for approximately 20 large capital projects that will increase recycled water deliveries by six-folds, adding more than 106,300 feet of new pipe and saving potable water for nearly 31,000 households throughout the City.<sup>12</sup> Potential customers in future years include several parks (Elysian, Branford, and Balboa parks); Harbor and Scattergood Generating Stations; Hansen Dam and Van Nuys golf courses; oil refineries in the Harbor area; LAX cooling towers; schools in the Sepulveda Basin, and the Los Angeles Zoo. Under the City's Water/Wastewater Integrated Resources Plan, 30,250 AFY of treated water will continue to be used to support habitat in the Japanese Gardens, Lake Balboa, the Wildlife Lake and the Los Angeles River.<sup>13</sup>

**Use Recycled Water for Groundwater Replenishment.** Advanced treated recycled water can be sent to spreading basins to percolate underground and become part of the City's groundwater system for later use. This process, also termed groundwater replenishment, is a proven alternative for expanding locally produced, safe, high-quality drinking water. The process has been successfully implemented in Orange County, Australia, and Singapore, and is being considered in other U.S. and worldwide locations.<sup>14</sup>

**Recycled Water Advisory Group.** LADWP is engaging stakeholders through the Recycled Water Advisory Group process. The Recycled Water Advisory Group meets regularly to discuss recycled water plans and issues.

**Upgrade Tillman Wastewater Treatment Plant:** Groundwater replenishment will require upgrading the Tillman Plant with state-of-the-art, advanced treatment capability similar to the Orange County Water District's recently implemented Groundwater Replenishment System, which has received widespread support. Advanced treatment would be constructed at the Tillman Plant, and the highly treated wastewater would be piped to spreading basins for groundwater recharge.<sup>15</sup>

### 3.0 Enhancing Stormwater Capture

The City's goal is to increase groundwater recharge by retrofitting the Big Tujunga Dam and other large-scale projects through cooperative efforts with the Los Angeles County Flood Control District and other agencies. LADWP is moving forward with several

<sup>11</sup> *Securing L.A.'s Water Supply* at 24.

<sup>12</sup> *Id.*

<sup>13</sup> *Id.*

<sup>14</sup> *Id.*

<sup>15</sup> *Id.*

stormwater capture projects with the goal of increasing long-term groundwater recharge by a minimum of 20,000 AFY.<sup>16</sup> The following are the large-scale projects that are expected to be completed or in construction within the next several years:

**Big Tujunga Dam – San Fernando Basin Groundwater Enhancement Project:**

On September 18, 2007, the LADWP Board approved Agreement No. 47717 to provide \$9 million to the Los Angeles County Flood Control District for the reconstruction of the Big Tujunga Dam Project – an effort to seismically retrofit the dam, increase its water storage capacity, improve its reliability as a supply source, enhance flood protection measures, and green the environment. The restoration of the dam is conservatively estimated to result in the additional capture and recharge of 4,500 AFY at the Hansen and Tujunga Spreading Grounds, and more in wet years. The project will make structural improvements to Big Tujunga Dam to restore its historical retention capacity of 6,000 acre-feet; currently the dam is restricted to 1,500 acre-feet of storage capacity.<sup>17</sup>

- Schedule: In construction; scheduled to be completed by summer 2011.
- Budget: \$105 million of which LADWP is providing \$9 million.
- Resources: Los Angeles County Flood Control District is the project manager.
- Potential Water Savings: Capture an additional 4,500 AFY of stormwater on average, up to 10,000 AFY or more in extremely wet years.

**Sheldon-Arleta Project – Cesar Chavez Recreation Complex Project Phase I:**

On December 19, 2006, the Board of Water and Power Commissioners approved Agreement No. 47448 to provide up to \$5.25 million to the City of Los Angeles Department of Public Works for the construction of the project (the total project cost is about \$9 million). The project will upgrade the methane gas extraction system at the Sheldon-Arleta Landfill that is necessary to allow the full use of the adjacent Tujunga Spreading Grounds. Currently, the spreading grounds are restricted to an operating capacity of 50 cubic feet per second (cfs) or 20 percent of the full operating capacity of 250 cfs.<sup>18</sup>

- Schedule: Construction completed in November 2009.
- Budget: \$9 million of which LADWP provided \$5.25 million.
- Resources: Los Angeles Department of Public Works is the project manager.
- Potential Water Savings: Capture of an additional 2,000 to 8,000 AFY of stormwater for the adjacent Tujunga Spreading Grounds.

**Hansen Spreading Grounds Enhancement Project:** LADWP has entered into Agreement No. 47739 to share the costs of the renovation of the Hansen Spreading Grounds Project with the District. The project will increase the capacity and efficiency of the spreading grounds by: 1) combining and deepening the existing basins, and 2) installing and building a new rubber dam, intake structure, control house, and

<sup>16</sup> *Id.* at 26.

<sup>17</sup> *Id.* at 27.

<sup>18</sup> *Id.*



upgrading the telemetry system. The Los Angeles County Board of Supervisors approved the agreement on March 11, 2008, and the LADWP Board of Commissioners approved it on April 1, 2008.<sup>19</sup>

- Schedule: Construction was completed in December 2009.
- Budget: \$10 million of which LADWP is providing up to \$5 million.
- Resources: Los Angeles County Flood Control District is the project manager.
- Potential Water Savings: Capture of an additional 1,200 to 3,000 AFY of stormwater.

**Tujunga Spreading Grounds Enhancement Project:** This project proposes to deepen the spreading basins, increase their storage capacity, replace the existing diversion structure with two diversion structures, and add remote automation of the operating structures.<sup>20</sup>

- Schedule: Planning and design 2010-11; construction in 2012-13.
- Budget: \$1.0 million for design; \$24 million for construction (LADWP funded).
- Resources: LADWP will be the project manager.
- Potential Water Savings: Capture of an additional 8,000 to 12,000 AFY of stormwater.

**Pacoima Spreading Grounds Enhancement Project:** This project proposes to deepen the spreading basins, increase their storage capacity, replace existing diversion structure, and add remote automation of the operating structures.<sup>21</sup>

- Schedule: Planning and design 2011-12; construction in 2013-14.
- Budget: \$2.0 million for design; \$28 million for construction (LADWP may provide some funding for this project).
- Resources: Los Angeles County Flood Control District will be the project manager.
- Potential Water Savings: Capture of an additional 1,500 to 3,000 AFY of stormwater.

#### 4.0 Accelerating Clean-Up of the San Fernando Groundwater Basin

The City's goal is to clean up the contaminated San Fernando Groundwater Basin to expand groundwater storage and the ability to fully utilize the City's groundwater supplies. The result will be a reduction of imported water supply of up to 87,000 AFY –

<sup>19</sup> *Id.* at 27-28.

<sup>20</sup> *Id.* at 28.

<sup>21</sup> *Id.*

LADWP's annual allocation of San Fernando Valley groundwater supplies.<sup>22</sup> LADWP will also work to ensure that this Basin remains a consistent, stable and reliable resource for years to come. The following actions are proposed to achieve this goal:

**Work with Regulatory Agencies and Governmental Officials:** LADWP will continue to encourage the EPA to develop a long-term, comprehensive solution for existing and emerging contamination issues in the Basin. In addition to the EPA, LADWP will work with the Los Angeles Regional Water Quality Control Board and the California Department of Toxic Substances to find and hold polluters accountable for cleaning up the Basin.<sup>23</sup>

**Groundwater System Improvement Study (GSIS):** In February 2009, LADWP began a 6-year, approximately \$19.0-million Groundwater System Improvement Study (GSIS) in the San Fernando Basin (SFB) that will provide vital information to evaluate the groundwater quality in the SFB and recommend treatment options to maximize the utility of the groundwater supply.<sup>24</sup> As part of the GSIS, LADWP will be securing a monitoring well drilling contract by May 2011 to install approximately 26 new monitoring wells in the SFB that will provide vital water quality information necessary for the Groundwater System Improvement Study.<sup>25</sup> The critical water supply picture in the region has forced LADWP to initiate a fast-tracked and ambitious undertaking to restore its lost groundwater production. This undertaking will also prepare LADWP to safely manage and extract water from future groundwater recharge efforts. LADWP is in the early stages of developing a groundwater treatment complex for the SFB. The construction of the treatment complex will greatly reduce LADWP's reliance on costly and diminishing imported water supplies, and will compliment LADWP's strategies for securing the City of Los Angeles' future water supply through sustainable means.

**Interim Wellhead Treatment:** LADWP completed the installation of interim treatment for 2 wells in the Tujunga Well Field in order to maintain groundwater pumping production. A capital amount of approximately \$7 million was included in the budget for this work.<sup>26</sup>

## 5.0 Expanding Groundwater Storage

LADWP is investigating opportunities for increased storage of groundwater, creating a cost-effective, environmentally friendly reserve of water resources in case of extreme dry weather conditions or other emergencies. Currently, the City has significant amounts of stored groundwater in the San Fernando Basin. However, as noted above, contamination restricts the ability to effectively utilize this resource.<sup>27</sup>

LADWP is investigating groundwater storage along the Los Angeles Aqueduct, and supports judgment amendments to allow storage in the Central and West Coast Basins.

<sup>22</sup> *Id.* at 29.

<sup>23</sup> *Id.* at 30.

<sup>24</sup> *Id.*

<sup>25</sup> *Id.*

<sup>26</sup> *Id.*

<sup>27</sup> *Id.*

Construction commenced in 2010 on an interconnection between the First Los Angeles Aqueduct and the east branch of the State Water Project, located where the two aqueducts intersect in the Antelope Valley. The interconnection will allow for water transfers or exchanges.

## Water Supplies

The Los Angeles Aqueducts (LAA), local groundwater, purchased water from the MWD, and recycled water are the primary sources of water supplies for the City of Los Angeles. Table III shows LADWP water supplies over the last ten years from these sources.

TABLE III  
LADWP Water Supply

Year	Los Angeles Aqueducts	Local Groundwater	MWD	Recycled Water	Transfer, Spread, Spills, and Storage	Total
2001	266,480	80,241	315,096	1,675	-1,994	665,486
2002	179,237	85,153	401,303	1,944	-1,405	669,042
2003	251,340	86,341	317,774	1,759	2,528	654,687
2004	203,190	75,696	392,603	1,774	-2,958	676,221
2005	376,394	57,623	184,192	1,401	3,140	616,470
2006	380,235	67,299	189,975	3,893	-1,336	642,738
2007	127,392	88,041	438,344	3,595	1,044	656,327
2008	148,407	64,604	430,959	7,048	1,664	649,354
2009	137,261	66,998	357,005	7,570	3,052	565,782
2010	252,019	67,250	208,264	6,900	-938	535,371

Note: Units are in AF

## Los Angeles Aqueducts

Snowmelt runoff from the Eastern Sierra Nevada Mountains is collected and conveyed to the City of Los Angeles via the Los Angeles Aqueducts (LAA). LAA supplies come primarily from snowmelt and secondarily from groundwater pumping, and can fluctuate yearly due to the varying hydrologic conditions. In recent years, LAA supplies have been less than the historical average because of environmental restoration obligations in Mono and Inyo Counties.

The City holds water rights in the Eastern Sierra Nevada where LAA supplies originate. These supplies originate from both streams and from groundwater. In 1905, the City approved a bond measure for the purchase of land and water rights in the Owens River Valley. By 1913, the First LAA began its deliveries of water to the City primarily from surface water diversions from the Owens River and its tributaries. Historically, these supplies were augmented from time to time by groundwater extractions from beneath the lands that the City had purchased in the Owens Valley.

In 1940, the First LAA was extended north to deliver Mono Basin water to the City pursuant to water rights permits and licenses granted by the State Water Resources Control Board. In 1970, the Second LAA was completed increasing total delivery capacity of the LAA system to approximately 561,000 AF per year. The Second Los Angeles Aqueduct was to be filled by completing the Mono Basin diversions originally authorized in 1940, by a more effective use of water for agricultural purposes on City-owned lands in the Owens Valley and Mono Basin and by increased groundwater pumping from the City's lands in the Owens Valley.

In 1972, Inyo County filed a California Environmental Quality Act lawsuit challenging the City's groundwater pumping program for the Owens Valley. The lawsuit was finally ended in 1997, with the County of Inyo and the City of Los Angeles entering into a long-term water agreement for the management of groundwater in the Owens Valley. That water agreement, entered as a judgment of the Superior Court in the County of Inyo (County of Inyo vs. City of Los Angeles, Superior Court No. 12908) outlines the management of the City's Owens Valley groundwater resources. As a result of this water agreement and subsequent Memorandum of Understanding, LADWP has dedicated 37,000 AF of water annually for enhancement and mitigation projects throughout Owens Valley which includes the rewatering of 62 miles of the Lower Owens River. LADWP also provides approximately 80,000 AF of water annually for other uses in the Owens Valley such as irrigation, town water supplies, stockwater, wildlife and recreational purposes.

Further, in September 1994 by virtue of the public trust doctrine, the State Water Resources Control Board issued Decision 1631 which placed conditions on LADWP's water gathering activities from Mono Basin. LADWP currently export approximately 16,000 AF of water annually from the Mono Basin. LADWP has implemented an extensive restoration and monitoring programs in Mono Basin to increase the level of Mono Lake and to improve stream conditions, fisheries and waterfowl habitats in Walker, Parker, Rush and Lee Vining Creeks. With reduced diversions from the Mono Basin and favorable hydrologic conditions, Mono Lake's elevation has risen overtime. Once the elevation of Mono Basin reaches 6,391 feet above mean sea level, a moderate increase in water exports from the Mono Basin will be permitted pursuant to the Decision 1631. Currently, up to 74,000 AF of water annually is being utilized for environmental restoration in Mono Basin.

In July 1998, LADWP and the Great Basin Unified Air Pollution Control District (GBUAPCD) entered into a Memorandum of Agreement to mitigate dust emissions from Owens Lake. As of December 31, 2008, LADWP has mitigated dust emissions from 29.8 square miles of Owens Lake in accordance with the GBUAPCD's 2003 revised State Implementation Plan. LADWP is currently working on mitigating dust emissions from an additional 12.7 square miles of Owens Lake in accordance with the GBUAPCD's 2008 State Implementation Plan. Upon completion of this latest phase by April 2010, LADWP would have mitigated dust emissions from 39.5 square miles of Owens Lake requiring approximately 95,000 AF of water annually to sustain the dust mitigation program.

Average deliveries from the LAA system have been approximately 239,100 AF of water annually over the last five fiscal years. Based on computer modeling results, LADWP projects that the average annual LAA delivery is expected to be approximately 254,000 AF.

## Groundwater

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LADWP traditionally extracts groundwater from nine wellfields throughout the Owens Valley and four local groundwater basins. LADWP owns approximately 315,000 acres of property in the Owens Valley. Groundwater pumping by LADWP from beneath its lands in Owens Valley is used in Owens Valley and in Los Angeles in accordance with a long-term groundwater management plan. Additionally, LADWP currently exercises its adjudicated extraction rights in three local groundwater basins: San Fernando, Sylmar, and Central.

The Owens Valley, located on the eastern slope of the Sierra Nevada Mountains, encompasses approximately 3,300 square miles of drainage area. LADWP has extracted the following quantities of groundwater from the Owens Valley in the last five runoff years (April 1 – March 31):

- 2005-2006 56,766 AF
- 2006-2007 58,621 AF
- 2007-2008 60,338 AF
- 2008-2009 68,971 AF
- 2009-2010 65,425 AF

Owens Valley is not identified as an overdrafted basin in the California Department of Water Resources California's Groundwater Bulletin 118 Update 2003. Further, Bulletin 118 Update 2003 does not project the Owens Valley to become overdrafted if present groundwater management conditions continue.

In 1990, the City of Los Angeles and Inyo County as part of the preparation of the long-term groundwater management agreement, prepared the "Green Book for the Long-Term Groundwater Management Plan for the Owens Valley and Inyo County". It contains plans and procedures to prevent overdraft conditions from groundwater pumping as well as to manage vegetation in the Owens Valley.

The San Fernando and Sylmar basins are subject to the judgment in City of San Fernando vs. the City of Los Angeles. Pumping is reported to the court-appointed Upper Los Angeles River Area (ULARA) Watermaster. The Central Basin is also subject to court judgments. Pumping is reported to the California Department of Water Resources (DWR) who acts as Watermaster.

The San Fernando Basin is the largest of four basins within ULARA. The basin consists of 112,000 acres of land and comprises 91.2 percent of the ULARA valley fill. LADWP has accumulated nearly 406,313 AF of stored water credits in the San Fernando Basin as of October 2008 (120,560 AF of stored water credits that are available to be pumped now and 285,753 AF that are held in reserve). This is water LADWP can withdraw from the basin during normal and dry years or in an emergency, in addition to LADWP's approximately 87,000 AF annual entitlement in the basin. The majority of LADWP's groundwater is extracted from the San Fernando Basin. Sylmar Basin is located in the northern part of the ULARA, consisting of 5,600 acres and comprises 4.6 percent of the

ULARA valley fill. LADWP currently has an annual entitlement of 3,405 AF from the Sylmar Basin.

The court decision on pumping rights in the ULARA was implemented in a judgment on January 26, 1979. Enclosed with the assessment are copies of those pages from the judgment showing the entitlements (see Appendix D). Further information about the ULARA is in the ULARA Watermaster Report. The ULARA Watermaster report and the judgment are available for review at the office of the ULARA Watermaster.

LADWP additionally has adjudicated rights to extract groundwater from the Central Basin. Annual entitlement to the Central Basin is 15,000 AF. See Appendix D for copies of relevant portions of the judgments. The complete judgments are available for review at DWR.

For the period of October 2009 to September 2010, LADWP extracted 59,958 AF, 2,544 AF, and 11,135 AF from the San Fernando, Sylmar, and Central Basins, respectively. LADWP plans to continue production from its groundwater basins in the coming years to offset reductions in imported supplies. Extraction from the basins will however be limited by water quality and overdraft protection. Both LADWP and DWR have programs in place to monitor wells to prevent overdrafting. LADWP's groundwater pumping practice is based on a "safe yield" operation. The objective, over a period of years, is to extract an amount of groundwater equal to the native and imported water that recharges the basin. Extractions by LADWP from the San Fernando, Sylmar, and Central Basins for the last available 5 years are shown on Table IV.

**TABLE IV**  
**Local Groundwater Basin Supply**

Water Year (Oct-Sep)	San Fernando	Sylmar	Central
2005-2006	38,042	2,175	13,725
2006-2007	76,251	3,919	13,609
2007-2008	50,009	2,997	10,754
2008-2009	52,896	868	11,817
2009-2010	59,958	2,544	11,135

Note: Units are in AF

## **Metropolitan Water District of Southern California (MWD)**

MWD is the largest water wholesaler for domestic and municipal uses in Southern California. As one of 26 member agencies, LADWP purchases water from MWD in addition to the supplies from local groundwater and the LAA. MWD imports a portion of its water supplies from Northern California through the State Water Project's California Aqueduct and from the Colorado River through MWD's own Colorado River Aqueduct. LADWP will continue to rely on MWD to meet its current and future water needs.

In ongoing efforts to evaluate MWD's own import reliability, an assessment was done to address changes in demand and supply conditions, and to provide additional resource reserves to mitigate against uncertainties in demand projections and risks in implementing supply programs. All these efforts went into MWD's blueprint for securing reliable water supplies in their report entitled, "Report on Metropolitan's Water Supplies" dated March 25, 2003, in Appendix F.

All 26-member agencies have preferential rights to purchase water from MWD. Pursuant to Section 135 of the MWD Act, "Each member public agency shall have a preferential right to purchase from the district for distribution by such agency, or any public utility therein empowered by such agency for the purpose, for domestic and municipal uses within the agency a portion of the water served by the district which shall, from time to time, bear the same ratio to all of the water supply of the district as the total accumulation of amounts paid by such agency to the district on tax assessments and otherwise, excepting purchase of water, toward the capital cost and operating expense of the district's works shall bear to the total payments received by the district on account of tax assessments and otherwise, excepting purchase of water, toward such capital cost and operating expense." This is known as a preferential right. As of June 30, 2006, LADWP has a preferential right to purchase 21.16 percent of MWD's total water supply.

LADWP has worked with MWD in developing a plan for allocating water supplies during periods of shortage. On February 12, 2008, the MWD Board adopted its Water Supply Allocation Plan. LADWP supported the adoption of this plan and intends to work within the plan to acquire its dry weather condition supplies from MWD in the future.

MWD has also been developing plans and taking efforts to provide additional water supply reliability for the entire southern California region. LADWP coordinates closely with MWD to ensure implementation of these water resource development plans. Part of MWD's planning efforts is the implementation of a Five-Year Supply Action Plan which is a comprehensive plan to pursue five-year supply actions to address potential shortfalls in the five-year planning horizon for water supply due to the effects of on-going dry hydrologic conditions and regulatory restrictions on exports from the Sacramento-San Joaquin Delta (Delta). A set of resource options for the next five years was developed based on the feasibility of projects and transactions and they focus on six main areas: conservation, Colorado River transactions, near-term Delta actions, State Water Project (SWP) transactions, groundwater recovery, and local resources. MWD's long-term plans to meet its member agencies' growing reliability needs are through water transfer programs, outdoor conservation measures, and development of additional local resources, such as recycling, brackish water desalination, and seawater desalination. Additionally, MWD has more than 5.0 million AF of storage capacity available in reservoirs and banking/transfer programs, with approximately 1.676 million AF currently in that storage and approximately 626 thousand AF in emergency storage.

MWD established a policy objective for water supply reliability as part of its Integrated Resources Plan (IRP). The policy objective is: Through the implementation of the IRP, MWD and its member agencies will have the full capability to meet full-service demands at the retail level at all times.

### *Recent Issues Related to the State Water Project*

Federal Endangered Species Act (ESA) Litigation filed by several environmental interest groups in the United States District Court for the Eastern District of California alleged that existing biological opinions and incidental take statements inadequately analyzed impacts on listed species under the Federal ESA. On May 25, 2007, Federal District Judge Wanger issued a decision on summary judgment finding the United States Fish and Wildlife Service's biological opinion for Delta smelt was invalid. On December 14, 2007, Judge Wanger issued his Interim Remedial Order requiring that the State Water Project and Central Valley Project operate according to certain specified criteria until a new biological opinion for the Delta smelt is issued. The United States Fish and Wildlife Service released the new biological opinion on December 15, 2008. Based on the Water Allocation Analysis released by the California Department of Water Resources (DWR) on December 19, 2008, which analyzed the biological opinion's effects on State Water Project operations, export restrictions under median hydrologic conditions reduce deliveries to Metropolitan by approximately 500,000 acre-feet. These events have highlighted the challenges that water suppliers throughout the state currently face regarding supplies from the Delta.

On January 20, 2011, the DWR announced that its 2011 SWP allocation would increase to 60 percent of total contracted water deliveries to the SWP contractors. Sixty percent of 1,911,500 AFY, which is the MWD's contracted water delivery amount, is 1,146,900 AFY. The allocation figure reflects the recent precipitation conditions, existing storage in SWP conservation reservoirs, SWP operational constraints such as the conditions of the recent Biological Opinions for delta smelt and salmonids and the longfin smelt incidental take permit, and 2011 projected contractor demands. DWR may revise allocations if warranted by the year's developing hydrologic and water supply conditions.

- **Delta Policy Legislation**

In November 2009, the State Legislature and then Governor Arnold Schwarzenegger passed the 2009 Comprehensive Water Package which consists of four policy bills and an \$11.14 billion bond proposal designed to address the water supply reliability needs for California as well as to restore the Sacramento-San Joaquin Delta. Senate Bill No. 1, the Delta Governance bill, repeals the current CALFED Bay Delta Authority governing structure and mandates the creation or reconstitution of several entities responsible for governing the Delta. These include the Delta Stewardship Council, the Delta Conservancy, the Delta Protection Commission, the Delta Watermaster, and the Delta Independent Science Board and Delta Science Program. These entities would be tasked with the co-equal goals of providing for California's water supply needs and restoring and enhancing the ecosystem of the Delta.



The responsibilities of the entities created by the Delta Governance bill are as follows:

- **Delta Stewardship Council**
  - The Delta Stewardship Council will be an independent agency of the state composed of seven members with the responsibility to oversee and coordinate state agency actions within the Delta.
  - The Council will develop a Delta Plan that will include all state and federal Delta ecosystem, flood management, water supply, and local economic sustainability efforts and will serve as a guide for state and local agencies to ensure that their actions are consistent with the Council's policies.
  - The Council will develop Performance measures to assess the progress of achieving the goals of the Delta Plan.
  - The Council will determine compliance with the Delta Plan and will serve as the appellate body in the event of disputes over the consistency of a project with the Delta Plan.
  - The Council will also ensure the consistency of the Bay-Delta Conservation Plan with the co-equal goals of water supply reliability and Delta restoration.
  
- **Delta Conservancy**
  - The Delta Conservancy will be an eleven member entity with the responsibility to develop and adopt a strategic plan that will coordinate investments in the Delta's natural and cultural resources.
  - The Conservancy shall promote the economic vitality in the Delta through increased tourism and the promotion of Delta legacy communities.
  - The Conservancy shall also promote environmental education about, and the public use of, public lands in the Delta.
  
- **Delta Protection Commission**
  - The Delta Protection Commission will reduce its membership from 23 to 15 members and will continue to provide a forum for Delta residents to engage in decisions regarding actions to recognize and enhance the cultural, recreational, and agricultural resources of the Delta.
  - The Commission is to also adopt an economic sustainability plan for the Delta, which is to include flood protection recommendations to state and local agencies. The economic sustainability plan developed by the Commission is to be included in the Delta Stewardship Council's Delta Plan.
  
- **Delta Watermaster**
  - The Delta Watermaster will exercise of the authority of the State Water Resources Control Board and will monitor and enforce Board orders as well as license and permit terms and conditions relating to water diversions in the Delta.
  
- **Delta Independent Science Board and Delta Science Program**
  - The Delta Independent Science Board will consist of no more than ten members and will provide oversight of the scientific research, monitoring, and assessment programs that support adaptive management of the Delta.

- The Delta Science Program will be led by a Delta Stewardship Council appointed lead scientist, and will provide unbiased scientific information to inform decision-making in the Delta.

In addition to the Delta Governance bill, the proposed \$11.14 billion bond would allocate \$2.25 billion for projects to assist in maintaining and restoring the Delta ecosystem. The bond investment will help to reduce the risk posed by seismic activities to water supplies from the Delta, protect drinking water quality and help to alleviate conflicts between water management and environmental protection.

In June 2010, the Governor Schwarzenegger recommended postponing the Water Bond until 2012, stating that his current focus was on the State's budget deficit, public pension issues, and economic situation. The bill postponing the Water Bond until 2012 was passed by the legislature and signed by then governor in August 2010. Implementation of other components of the 2009 State Water Legislation is on going.

In response to these recent developments in the Delta, MWD is engaged in planning processes that will identify local 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 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, and mandatory water allocations for municipal and industrial water use are some of the actions currently being taken by MWD which are outlined in the RUWMP. An in depth discussion on MWD is attached in Appendix G.

## **Secondary Sources and Other Considerations**

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Water conservation and recycling will play an increasing role in meeting future water demands. LADWP has implemented conservation and recycling programs with efforts under way to further promote and increase the level of these programs. LADWP is committed to supply a higher percentage of the City's water demand through conservation and recycling.

Integrated planning has also filled an important role in developing secondary sources of supply for Los Angeles. It is generally true for large undertakings that a concerted effort with others who share a common goal will produce a higher degree of success. This is an approach that has been taken in southern California with overall water resources planning. The City of Los Angeles works closely with MWD, the City's Bureau of Sanitation (wastewater agency), other regional water providers, and various stakeholder groups to develop and implement programs that reduce overall water use. The City has also pioneered community-based job programs to assist in conservation program implementation. While significantly assisting with program implementation, these community-based organizations also provide important social and economic benefits to neighborhoods.

Integrated resources planning is a process that is being used by many water and wastewater providers to meet their future needs in the most effective way possible, and with the greatest public support. The planning process differs from traditional planning processes in that it incorporates:

- public stakeholders in an open, participatory process;
- multiple objectives such as reliability, cost, water quality, environmental stewardship, and quality of life;
- risk and uncertainty; and
- partnerships with other agencies, institutions, and non-governmental organizations.

Through integrated planning, not only water-use efficiency and recycling activities are maximized, but potential alternative supplies such as water transfer, seawater desalination, and stormwater runoff reuse are considered and evaluated as part of the City's long-term water resources portfolio.

## **Rates**

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Capital costs to finance facilities for the delivery of water supply to LADWP's service area are supported through customer-billed water rates. The LADWP Board of Commissioners (Board) sets the rates subject to approval of the City Council by ordinance. The Board is obligated by the City Charter to establish water rates and collect charges in an amount sufficient to service the water system indebtedness and to meet its expenses for operation and maintenance.

The water rate structure contains water procurement adjustments under which the cost of purchased water from MWD, demand-side management programs which includes water conservation programs, and reclaimed water projects are recovered. In addition, the rate structure contains a water quality improvement adjustment to recover expenditures to upgrade and equalize water quality throughout the City of Los Angeles and to construct facilities to meet state and federal water quality standards, including the payment of debt service on bonds issued for such purposes.

## **Findings**

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The proposed Port of Los Angeles Berths 302-306 [APL] Container Terminal Project is estimated to increase water demand within the site by 25 acre feet annually based on review of information submitted by the Harbor Department.

The approximate 25 acre feet increase falls within the available and projected water supplies for normal, single-dry, and multiple-dry years through the year 2030 as described in LADWP's year 2005 UWMP. LADWP finds that it will be able to meet the water demand of the Port of Los Angeles Berths 302-306 [APL] Container Terminal Project as well as existing and planned future water demands of its service area.

## Appendix A

City of Los Angeles Department of City Planning  
Request for Water Supply Assessment



425 S. Palms Verdes Street Post Office Box 151 San Pedro, CA 90733-0151 TEL/TDD 310 SEA-PORT www.portoflosangeles.org

Antonio R. Villaralgaosa

*Mayor, City of Los Angeles*

Board of Harbor  
Commissioners

Cindy Miscikowski  
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*Vice President*

Kaylynn L. Kim

Douglas P. Krause

Joseph R. Radisich

Geraldine Knotz, Ph.D.

*Executive Director*

October 13, 2010

James McDaniel  
Senior Assistant General Manager of Water Systems  
City of Los Angeles  
Department of Water and Power  
111 North Hope Street, Room 1460  
Los Angeles, CA 90012

**SUBJECT: REQUEST FOR WATER SUPPLY ASSESSMENT FOR THE PORT OF  
LOS ANGELES BERTHS 302-306 [APL] CONTAINER TERMINAL  
PROJECT**

Dear Mr. McDaniel:

The Los Angeles Harbor Department (Harbor Department) is the Lead Agency, pursuant to the California Environmental Quality Act (CEQA), for the Environmental Impact Report (EIR) that is being prepared for the Berths 302-306 [APL] Container Terminal Project (proposed Project). The proposed Project would be an industrial use that would at times, require more than 1,000 persons onsite and would occupy more than 40 acres of increased industrial land area. For this reason, the Harbor Department will need to comply with the water supply assessment requirements of the State Water Code (Section 10910-10915), pursuant to State CEQA Guidelines Section 15155 (a) (1) (G). Therefore, we are requesting a water supply assessment from the Department of Water and Power (DWP) to determine the DWP's ability to meet the water demands of the proposed Project. The following information is intended to aid the DWP in the preparation of the requested water supply assessment.

#### **Planning Area and Required Discretionary Actions**

For the proposed Project, two governing land use planning documents are applicable, the General Plan of the City of Los Angeles (General Plan) and the Port Master Plan. The land use element of the General Plan is comprised of 35 Community Plans, which guide future land use development in the City. The proposed Project area is located within one of the 35 Community Plans: the Port of Los Angeles Plan. The Port Master

Plan, which serves as the Local Coastal Plan for the Port of Los Angeles, was certified by the California Coastal Commission and guides development within the Port.

The proposed Project would be consistent with the General Plan and the Port Master Plan, as well as underlying zoning. Permits required to implement the proposed Project include a Harbor Development Permit and ministerial construction permits to allow for site grading, building demolition, utility installation, and construction of terminal improvements.

### **Project Setting and Location**

The Harbor Department operates the Port under the legal mandates of the Port of Los Angeles Tidelands Trust (Los Angeles City Charter, Article VI, Sec.6 01; California Tidelands Trust Act of 1911) and the California Coastal Act (PRC Div 20 S30700 et seq.), which identify the Port and its facilities as a primary economic/coastal resource of the state and an essential element of the national maritime industry for promotion of commerce, navigation, fisheries, and harbor operations. The Harbor Department is chartered to develop and operate the Port to benefit maritime uses and functions as a landlord by leasing Port properties to more than 300 tenants. The Port is located at the southernmost portion of the City and is composed of 45 kilometers (28 miles) of waterfront and 3,035 hectares (7,500 acres) of land and water, with approximately 300 commercial berths. The Port is bound by the community of San Pedro to the west, the Wilmington community to the north, the Port of Long Beach to the east, and the Pacific Ocean to the south.

The Project site encompasses approximately 347 acres within the existing boundaries of the Port of Los Angeles Community Plan and the existing Port Master Plan. The Project site is generally bounded by Terminal Way and Seaside Avenue on the north, by the Pier 300 Shallow Water Habitat, Navy Way, and Sea Plane Lagoon on the east, by the Pier 300 Channel and the Outer Los Angeles Harbor on the east, and by Earle Street and Fish Harbor on the west. The existing container terminal (see Figure 1) occupies 291 acres along Berths 302-305, and would be expanded primarily to the east on vacant undeveloped land (behind future Berth 306), but would also include minor expansions to the north and west on unoccupied areas to be redeveloped. Figure 2 shows the proposed Project's expansion areas.

### **Existing Conditions**

The existing APL Terminal is an operating container terminal with the primary function of loading and unloading shipping containers to and from ocean going vessels (via 12 A-frame cranes along the terminal wharf), storage of containers on terminal backlands, and transfer of the containers to surface transportation modes (trucks and rail).

Table 1 below identifies the amount (square footage or acres) of existing land use types at the Project site, and the current water demand of the existing uses (see the CEQA Baseline column) which will be altered or changed under the proposed project. As can be seen in the table, the existing Berths 302-305 Container Terminal uses approximately 41.4 acre-feet per year (afy) of water.

### **Purpose of the Proposed Project**

The overall purposes of the proposed Project are threefold: (1) provide a portion of the facilities needed to accommodate the projected long-term growth in the volume of containerized cargo through the Port and at the APL Terminal; (2) comply with the Mayor's goal for the Port to "grow green" (increase growth while mitigating the environmental impacts of that growth on the local communities and the Los Angeles region by implementing pollution control measures, including the elements of the Clean Air Action Plan – [CAAP]); and (3) comply with the Port Strategic Plan to maximize the efficiency and capacity of terminals while raising environmental standards through application of all feasible mitigation measures. To meet the overall Project purposes, the following objectives need to be accomplished:

- Optimize the use of existing land at Berths 302-306 and associated waterways in a manner that is consistent with the Harbor Department's public trust obligations;
- Improve the container terminal at Berths 302-306 to more efficiently work larger ships and to ensure the terminal's ability to accommodate increased numbers and sizes of container ships;
- Increase accommodations for container ship berthing, and provide sufficient backland area and associated improvements for optimized container terminal operations, at Berths 302-306;
- Incorporate modern backland design efficiencies into improvements to the existing vacant landfill area at Berths 305-306; and
- Improve the access into and out of the terminal, as well as internal terminal circulation, at Berths 302-306 to reduce the time for gate turns and to increase terminal efficiency.

Table 1: Water Demand – Berths 302-306 [APL] Container Terminal Project

	CEQA Baseline	Proposed Project	Alt. 1 No Project	Alt. 2 No Federal Action	Alt. 3 Four New Cranes Only	Alt. 4 No New Wharf	Alt. 5 No Space Assignment	Alt. 6 Project with Expanded On-Dock Rail
Office Uses Factor (gpd/1,000 sf)	150	150	150	150	150	150	150	150
Total Office Area (sf)	46,853	58,939	46,853	46,853	46,853	58,939	58,939	58,939
Office Water Demand (gpd)	7,028	8,841	7,028	7,028	7,028	8,841	8,841	8,841
Industrial Uses Factor (gpd/1,000 sf)	80	80	80	80	80	80	80	80
Total Industrial Area (sf)	61,391	72,449	61,391	61,391	61,391	72,449	72,449	72,449
Industrial Water Demand (gpd)	4,911	5,796	4,911	4,911	4,911	5,796	5,796	5,796
Other Water Factor <sup>a</sup>	24 gpcd <sup>a</sup>	24 gpcd <sup>a</sup>	24 gpcd <sup>a</sup>	24 gpcd <sup>a</sup>	24 gpcd <sup>a</sup>	24 gpcd <sup>a</sup>	24 gpcd <sup>a</sup>	24 gpcd <sup>a</sup>
Total Other Unit	1,041	2,152	1,202	1,202	1,448	1,711	2,152	2,152
Other Water Demand (gpd)	24,984	51,648	28,848	28,848	34,752	41,064	51,648	51,648
Total Water Demand (gpd)	36,923	66,285	40,787	40,787	46,691	55,701	66,285	66,285
Conversion (gal/acre-foot)	325,851.4	325,851.4	325,851.4	325,851.4	325,851.4	325,851.4	325,851.4	325,851.4
Total Water Demand (acre-feet/day)	0.11	0.20	0.13	0.13	0.14	0.17	0.20	0.20
Total LADWP Water Demand (afy)	41.4	74.2	45.7	45.7	52.3	62.4	74.2	74.2
LADWP Demand (acre-feet) <sup>b, c</sup>	680,000	776,000	776,000	776,000	776,000	776,000	776,000	776,000
Percent of LADWP Demand	0.0061%	0.0096%	0.0059%	0.0059%	0.0067%	0.0080%	0.0096%	0.0096%

Notes:

<sup>a</sup>The usage factor for employees is based on the City's Bureau of Sanitation's per capita wastewater generation from employees (24 gallons per capita per day (gpcd)).

<sup>b</sup>Source: UWWMP, LADWP 2005.

<sup>c</sup>Year 2030 water demand projection is used for the Project and alternatives



### Estimate of Proposed Project Water Use

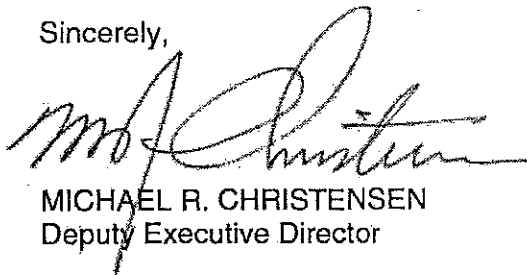
Major elements of the proposed Project that alter the existing conditions and could require additional water beyond what is already currently being provided include the following:

- Increased office building space (from approximately 47,000 sf to 59,000 sf)
- Increased industrial building space (from approximately 61,000 sf to 72,000 sf)
- Increased number of peak employees (from approximately 1,041 to 2,152)
- Increased terminal acreage (from 291 to 347)

Table 1 above also shows the anticipated water demand for the proposed Project and alternatives. The water demand assumptions, including water use factors, are included in the table. The proposed Project is expected to increase water demand by 32.8 afy from the DWP over the existing (CEQA Baseline) usage. Other alternatives to the proposed Project would also increase water demand over baseline conditions, but would not result in increases greater than the proposed Project (see Table 1 for details).

We look forward to working with DWP on the water supply assessment for the proposed Project. We plan to set up an IDO with DWP for the required WSA processing fee. If you have any questions or require additional information please contact Jan Green Rebstock at (310) 732-3949.

Sincerely,



MICHAEL R. CHRISTENSEN  
Deputy Executive Director

MRC:CLP:LO:JGR:yo  
ADP No.: 081203-131

cc: Jan Green Rebstock, LAHD, Environmental Project Manager

Attachments

## Appendix B

Water Conservation Commitment Letter



425 S. Palos Verdes Street Post Office Box 151 San Pedro, CA 90733-0151 TEL/TDD 310 SEA-PORT www.portoflosangeles.org

Antonio R. Villaraigosa

Mayor, City of Los Angeles

Board of Harbor  
Commissioners

Cindy Miscikowski  
President

David Arlan  
Vice President

Kaylynn L. Kim

Robin M. Kramer

Douglas P. Krause

Geraldine Knatz, Ph.D.

Executive Director

WATER SYSTEMS

FEB 16 2011

APL

February 7, 2011

James McDaniel  
Senior Assistant General Manager for Water Systems  
Los Angeles Department of Water & Power  
111 North Hope Street, Room 1455  
Los Angeles, CA 90012-5701

Dear Mr. McDaniel:

**SUBJECT: WATER CONSERVATION COMMITMENTS FOR BERTHS 302-306  
[APL] CONTAINER TERMINAL PROJECT**

The Los Angeles Harbor Department (LAHD) proposes to expand the existing Berths 302-305 [APL] Container Terminal on Terminal Island within the Port of Los Angeles. The Project site, which encompasses approximately 347 acres (the existing terminal is 291 acres), is generally bounded by Terminal Way and Seaside Avenue on the north, by the Pier 300 Shallow Water Habitat, Navy Way, and Sea Plane Lagoon on the east, by the Pier 300 Channel and the Outer Los Angeles Harbor on the south, and by Earle Street and Fish Harbor on the west.

The majority of the existing container terminal is comprised of paved backlands for the storage of container terminals, although other developed office and industrial building uses (e.g. maintenance and repair buildings) exist. The proposed Project would expand the existing terminal (from 291 acres to 347 acres) by adding Berth 306, new backlands and cranes, and by increasing the office and industrial uses as follows (see Table 1):

- Increase the office use space from approximately 43,000 square feet (sf) to 52,620 sf.
- Increase the industrial building space<sup>1</sup> from approximately 60,000 sf to 86,661 sf.

<sup>1</sup> Although the site is zoned for industrial uses, the container terminal does not have industrial processes that consume water such as industrial manufacturing. Rather, the terminal's industrial activities would include chassis repair, equipment maintenance, and similar activities.

2/16/2011 Tom Erb: For necessary attention  
km c: Jim McDaniel



The proposed Project would not involve the development of retail space, restaurant uses, apartment units, hotel units, community/cultural uses, or courtyards and gathering spaces. The Project would also include approximately 10 additional surface parking spaces within the container terminal backlands to accommodate workers and visitors. There are currently 90 existing parking spaces at the Power Shop (approximately 0.8 acres) which would be eliminated and replaced with approximately 100 parking spaces behind Berth 301 (which would increase parking by approximately 2.5 acres). Additional equipment storage spaces would be added to terminal backlands to accommodate terminal operations. As part of the project, the existing Roadability Building (approximately 1,280 sf) would be demolished and replaced with a new Roadability Canopy<sup>2</sup> (8,760 sf) and Genset Building<sup>3</sup> (4,175sf). The existing Power Shop would be expanded by approximately 20,309 sf (10,151 sf of office space and 10,158 sf of industrial space).<sup>4</sup> In addition, the existing tire canopy (840 sf) would be demolished, and a new Tire Service Canopy<sup>5</sup> constructed (4,380 sf).

LAHD understands the City of Los Angeles' policy that future water needs shall be met by expanding water recycling and conservation. The LAHD has committed to implement the following water conservation measures for the proposed Project:

- High Efficiency Toilets with flush volume of 1.28 gallons of water per flush
- High Efficiency Urinals with flush volume of 0.125 gallons of water per flush
- Faucets – all indoor faucets (other than City Ordinance No.180822 requirements) with flow rate of 1.5 gallons per minute or less
- Showerheads – no more than one showerhead per stall

LAHD has also committed to comply with the Standard Urban Stormwater Mitigation Plan (SUSMP) and to implement Best Management Practices that have stormwater recharge or reuse benefits for the entire (Project) where feasible, reasonable, and applicable. However, because the proposed Project is the expansion of an existing container terminal in an industrial port area that is not suitable for groundwater recharge,

<sup>2</sup> The Roadability Canopy is an area where the operational condition of loaded trucks would be checked to ensure they are road worthy, prior to leaving the Terminal, and where refrigeration generators are maintained.

<sup>3</sup> The Genset Building would provide space for employees engaged in the maintenance and repair of refrigeration generators. It would also provide restroom and break facilities for employees at the adjacent Roadability Canopy and Tire Service Canopy facilities.

<sup>4</sup> The Power Shop Annex would support maintenance, repair, and related activities for yard tractors, top-picks, side-picks, forklifts, and other equipment necessary for the operation of a container terminal. It would also support other service areas such as repair/changing tires, oil changes, break inspection, and equipment steam cleaning. The expansion would include office space on the second floor.

<sup>5</sup> The Tire Service Canopy is an area where truck tires are checked and changed and minor mechanical functions performed, as necessary.

LAHD will implement BMPs that will focus on runoff pretreatment prior to discharge to the Harbor.

City Ordinance No.180822, effective Dec. 1, 2009, requires the following items and the LAHD acknowledges compliance with the following requirements for the proposed Project:

- High Efficiency Toilets – maximum flush volume not to exceed 1.28 gallons of water (effective) per flush
- High Efficiency Urinals – maximum flush volume not to exceed 0.125 gallons of water per flush
- Faucets:
  - Public Use Lavatory Faucets – 0.5 gallons per minute, self-closing
  - All Other Faucets – 2.2 gallons per minute
- Low-flow Showerheads – maximum flow rate not to exceed 2.0 gallons per minute, except emergency showerheads for health or safety purposes.

The following is the information on plumbing fixtures proposed as part of the Berths 302-306 [APL] Container Terminal Project:

	<b>Office</b>	<b>Industrial</b>
Toilets	6	7
Urinals	3	3
Restroom Faucets	5	6
Utility Faucets (indoors)	5	2
Showers	0	8
Note: Longshoremen use the restroom facilities at all of the buildings on the terminal. Longshoremen generally do not use showers at the terminal site.		

We acknowledge that all new projects in the City of Los Angeles may be subject to additional requirements as a condition of water service, including a potential future fee to fund expansion of the recycled water program, as applicable. We also acknowledge that the issuance of a Water Supply Assessment does not exempt the proposed Project from this potential future fee.

Mr. McDaniel

Page 4

We look forward to working with LADWP and implementing these conservation measures for the proposed Project. Should you have any questions, please do not hesitate to contact the Port Environmental Project Manager, Jan Green Rebstock at (310) 732-3949.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael R. Christensen". The signature is fluid and cursive, with a large initial "M" and "C".

MICHAEL R. CHRISTENSEN  
Deputy Executive Director

CC:LO:JGR:yo  
ADP No.: 081203-131

Enclosure

Table 1: Berths 302-306 APL Container Terminal Project Building Square Footage and Uses

Bldg #	Description	Total Baseline Area (SF)	Baseline Office Area (SF)	Baseline Industrial Area (SF)	Proposed Office Area (SF)	Proposed Industrial Area (SF)	Proposed Total Area (SF)
1a	Guard Booth (@ main)	208	208	-	252	-	252
1b	Guard Booth (@ 2ndry)	353	353	-	363	-	353
2	Chassis Shop	29,832	3,703	26,129	-	-	-
3	Gatehouse	21,802	21,802	-	-	-	-
4	Reefer Wash	11,457	-	11,457	-	-	-
5	Compressed air Plant	909	-	909	-	-	-
6	Transload Office & Dock	4,059	200	3,859	-	-	-
7	Tire Canopy (to be demolished)	840	-	840	-	-	-
	Tire Canopy					4,380	4,380
8	Genset Bldg (to be demolished)	1,280	1,220	60	-	-	-
	Genset Bldg					4,175	4,175
9	2ndry Marine Bldg	5,072	-	-	-	-	-
10	Primary Marine Bldg	8,912	6,623	2,289	-	-	-
11	Longshore Toilet/Security Office	650	650	-	-	-	-
12	Power Shop	22,725	8,325	14,400	10,151	10,158	20,309
	Power Shop Annex						
13	Fuel Facility	145	-	145	-	-	-
13	Roadability Canopy					8,760	8,760
	<b>Total</b>	<b>108,245</b>	<b>43,084</b>	<b>60,088</b>	<b>10,756*</b>	<b>27,473*</b>	<b>38,229</b>

\* Office space will increase from 43,084 sf to 52, 620 sf, which also accounts for demolition of some existing office space (1220 sf). Industrial space will increase from 60,088 sf to 86,661 sf, which accounts for the demolition of 900 sf (840 sf + 60 sf) of existing industrial uses. Elements to be demolished are noted in the table above.

-Genset Building – provides housing for employees engaged in the maintenance and repair of generator sets. It also provides restroom and break facilities for the employees at the adjacent Roadability Canopy and Tire Service Canopy.

-Roadability/Genset Canopy – inspection of loaded trucks and operational condition prior to leaving the terminal

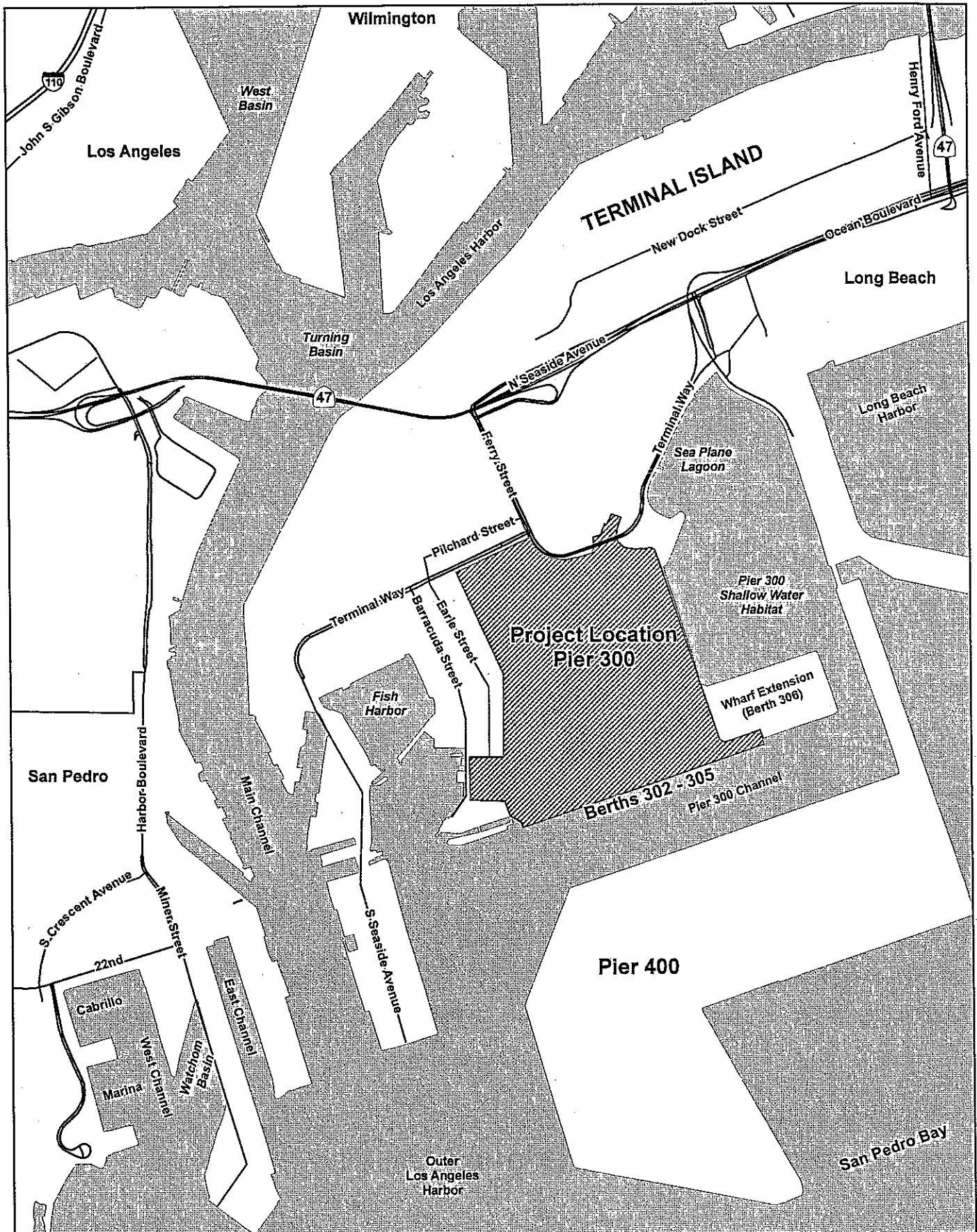
-Tire Service Canopy – performs all tire changing needs as well as minor mechanical functions.


-Power Shop Annex – houses maintenance, repair and related activities for yard tractors, top-picks, side-picks, forklifts and other container terminal operating equipment. It also supports other service areas such as tire repair and changing, oil changes, break inspection and equipment steam cleaning. There will be office spaces on the second floor.

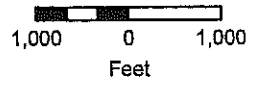
## Appendix C

### Project Location Map



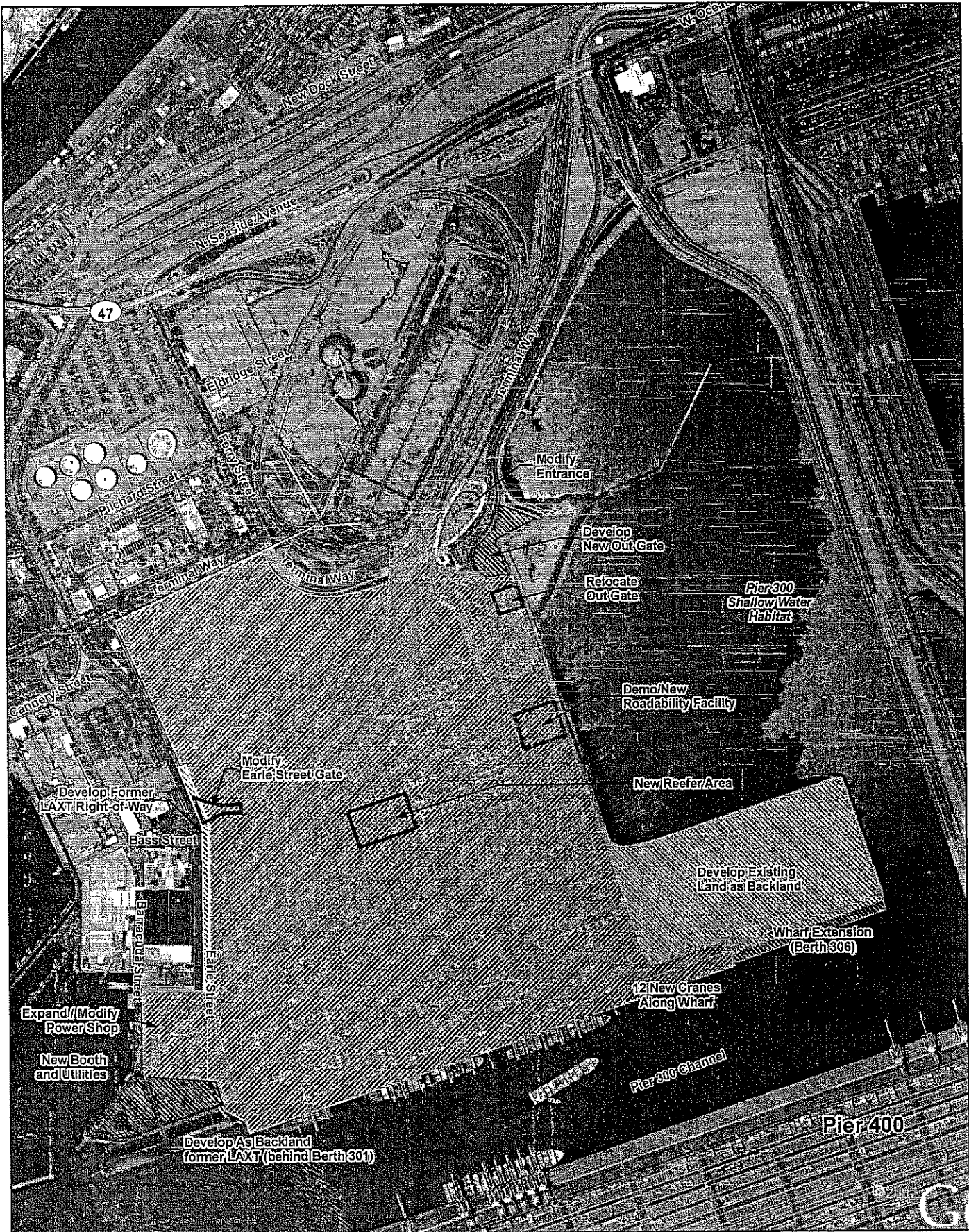


**Legend**  
 Existing Terminal



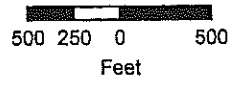
**Port of Los Angeles  
 Berths 302 - 306 [APL]  
 Container Terminal Project  
 Project Site and Vicinity**

**Figure 1**



**Legend**

- New 41 acres
- New 4 acres
- New 7 acres
- New 2 acres
- New 2 acres
- Existing Terminal



**Port of Los Angeles  
Berths 302 - 306 [APL]  
Container Terminal Project  
Proposed Project**

**Figure 2**

## Appendix D

### Adjudicated Groundwater Basin Judgments

- San Fernando Basin – Judgment No. 650079
- Sylmar Basin – Judgment No. 650079
- Central Basin – Judgment No, 786656

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SUPERIOR COURT OF THE STATE OF CALIFORNIA  
FOR THE COUNTY OF LOS ANGELES

THE CITY OF LOS ANGELES, )  
 )  
 Plaintiff, )  
 )  
 vs. )  
 )  
 CITY OF SAN FERNANDO, ET AL. )  
 )  
 Defendants. )

No. 650079  
JUDGMENT

There follows by consecutive paging Recitals (page 4), Definitions and List of Attachments (pages 1 to 6), Designation of Parties (page 6), Declaration re Geology and Hydrology (pages 6 to 12), Declaration of Rights (pages 12 to 21), Injunctions (pages 21 to 22), Continuing Jurisdiction (page 23), Watermaster (pages 23 to 29), Physical Solution (pages 29 to 34), and Miscellaneous Provisions (pages 34 to 35), and Attachments (pages 36 to 46). Each and all of said several parts constitute a single integrated Judgment herein.

1           4.2.3 Separate Ground Water Basins. The physical and geologic characteristics of each  
2 of the ground water basins, Eagle rock, Sylmar, Verdugo and San Fernando, cause impediments  
3 to inter-basin ground water flow whereby there is created separate underground reservoirs. Each  
4 of said basins contains a common source of water supply to parties extracting ground water from  
5 each of said basins. The amount of underflow from Sylmar Basin, Verdugo Basin and Eagle  
6 Rock Basin to San Fernando Basin is relatively small, and on the average has been  
7 approximately 540 acre feet per year from the Sylmar Basin; 80 acre feet per year from Verdugo  
8 Basin; and 50 acre feet per year from Eagle Rock Basin. Each has physiographic, geologic and  
9 hydrologic differences; one from the other, and each meets the hydrologic definition of "basin".  
10 The extractions of water in the respective basins affect the other water users within that basin but  
11 do not significantly or materially affect the ground water levels in any of the other basins. The  
12 underground reservoirs of Eagle Rock, Verdugo and Sylmar Basins are independent of one  
13 another and of the San Fernando Basin.

14           4.2.4 Safe Yield and Native Safe Yield. The safe yield and native safe yield, stated in  
15 acre feet, of the three largest basins for the year 1964-65 was as follows:

<u>Basin</u>	<u>Safe Yield</u>	<u>Native Safe Yield</u>
San Fernando	90,680	43,660
Sylmar	6,210	3,850
Verdugo	7,150	3,590

16           The safe yield of Eagle Rock Basin is derived from imported water delivered by Los Angeles.  
17           There is no measurable native safe yield.  
18

19           4.2.5 Separate Basins -- Separate Rights. The rights of the parties to extract ground  
20 water within ULARA are separate and distinct as within each of the several ground water basins  
21 within said watershed.  
22

23           4.2.6 Hydrologic Condition of Basins. The several basins within ULARA are in varying  
24 hydrologic conditions, which result in different legal consequences.  
25

26           4.2.6.1 San Fernando Basin. The first full year of overdraft in San Fernando  
27 Basin was 1954-55. It remained in overdraft continuously until 1968, when an injunction  
28

1 LAGERLOF, SENICAL, DRESCHER & SWIFT  
2 301 North Lake Avenue, 10th Floor  
3 Pasadena, California-91101  
4 (818) 793-9400 or (213) 385-4345  
5  
6  
7

8 SUPERIOR COURT OF THE STATE OF CALIFORNIA  
9 FOR THE COUNTY OF LOS ANGELES

10  
11 CENTRAL AND WEST BASIN WATER ) No. 786,656  
REPLENISHMENT DISTRICT, etc., ) SECOND AMENDED  
 ) JUDGMENT  
12 Plaintiff, )  
 ) (Declaring and establishing water rights in  
13 v. ) Central Basin and enjoining extractions  
 ) therefrom in excess of specified quantities.)  
14 CHARLES E. ADAMS, et al., )  
 )  
15 Defendants, )  
 )  
16 CITY OF LAKEWOOD, a municipal )  
corporation, )  
17 Cross-Complaint, )  
18 )  
19 v. )  
 )  
20 CHARLES E. ADAMS, et al., )  
 )  
21 Cross-Defendants, )  
 )  
22

23 The above-entitled matter duly and regularly came on for trial in Department 73  
24 of the above-entitled Court (having been transferred thereto from Department 75 by order of the  
25 presiding Judge), before the Honorable Edmund M. Moor, specially assigned Judge, on May 17,  
26 1965, at 10:00 a.m. Plaintiff was represented by its attorneys BEWLEY, KNOOP,



1 of the close of the water year ending September 30, 1978 in accordance with the Watermaster  
2 Reports on file with this Court and the records of the Plaintiff. This tabulation does not take into  
3 account additions or subtractions from any Allowed Pumping Allocation of a producer for the  
4 1978-79 water year, nor other adjustments not representing change in fee title to water rights,  
5 such as leases of water rights, nor does it include the names of lessees of landowners where the  
6 lessees are exercising the water rights. The exercise of all water rights is subject, however, to the  
7 provisions of this Judgment is hereinafter contained. All of said rights are of the same legal  
8 force and effect and are without priority with reference to each other. Each party whose name is  
9 hereinafter set forth in the tabulation set forth in Appendix "2" of this judgment, and after whose  
10 name there appears under the column "Total Water Right" the figure "0" owns no rights to  
11 extract any ground water from Central Basin, and has no right to extract any ground water from  
12 Central Basin.

13 (b) Defendant The City of Los Angeles is the owner of the right to extract fifteen  
14 thousand (15,000) acre feet per annum of ground water from Central Basin. Defendant  
15 Department of Water and Power of the City of Los Angeles has no right to extract ground water  
16 from Central Basin except insofar as it has the right, power, duty or obligation on behalf of  
17 defendant The City of Los Angeles to exercise the water rights in Central Basin of defendant The  
18 City of Los Angeles. The exercise of said rights are subject, however, to the provisions of this  
19 judgment hereafter contained, including but not limited to, sharing with other parties in any  
20 subsequent decreases or increases in the quantity of extractions permitted from Central Basin,  
21 pursuant to continuing jurisdiction of the Court, on the basis that fifteen thousand (15,000) acre  
22 feet bears to the Allowed Pumping Allocations of the other parties.

23 (c) No party to this action is the owner of or has any right to extract ground water  
24 from Central Basin except as herein affirmatively determined.

25 2. Parties Enjoined as Regards Quantities of Extractions.  
26  
27

# Appendix E

Water Supply Assessment Provisions  
California Water Code Section 10910-10915



# WATER CODE

## SECTION 10910-10915

10910. (a) Any city or county that determines that a project, as defined in Section 10912, is subject to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) under Section 21080 of the Public Resources Code shall comply with this part.

(b) The city or county, at the time that it determines whether an environmental impact report, a negative declaration, or a mitigated negative declaration is required for any project subject to the California Environmental Quality Act pursuant to Section 21080.1 of the Public Resources Code, shall identify any water system that is, or may become as a result of supplying water to the project identified pursuant to this subdivision, a public water system, as defined in Section 10912, that may supply water for the project. If the city or county is not able to identify any public water system that may supply water for the project, the city or county shall prepare the water assessment required by this part after consulting with any entity serving domestic water supplies whose service area includes the project site, the local agency formation commission, and any public water system adjacent to the project site.

(c) (1) The city or county, at the time it makes the determination required under Section 21080.1 of the Public Resources Code, shall request each public water system identified pursuant to subdivision (b) to determine whether the projected water demand associated with a proposed project was included as part of the most recently adopted urban water management plan adopted pursuant to Part 2.6 (commencing with Section 10610).

(2) If the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan, the public water system may incorporate the requested information from the urban water management plan in preparing the elements of the assessment required to comply with subdivisions (d), (e), (f), and (g).

(3) If the projected water demand associated with the proposed project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment for the project shall include a discussion with regard to whether the public water system's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses.

(4) If the city or county is required to comply with this part pursuant to subdivision (b), the water supply assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses.

(d) (1) The assessment required by this section shall include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water

supply for the proposed project, and a description of the quantities of water received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts.

(2) An identification of existing water supply entitlements, water rights, or water service contracts held by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall be demonstrated by providing information related to all of the following:

(A) Written contracts or other proof of entitlement to an identified water supply.

(B) Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.

(C) Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.

(D) Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.

(e) If no water has been received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts, the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall also include in its water supply assessment pursuant to subdivision (c), an identification of the other public water systems or water service contractholders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water as the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has identified as a source of water supply within its water supply assessments.

(f) If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water supply assessment:

(1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.

(2) A description of any groundwater basin or basins from which the proposed project will be supplied. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current bulletin of the department that characterizes the condition of the groundwater basin, and a detailed description by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin

from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(5) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project.

A water supply assessment shall not be required to include the information required by this paragraph if the public water system determines, as part of the review required by paragraph (1), that the sufficiency of groundwater necessary to meet the initial and projected water demand associated with the project was addressed in the description and analysis required by paragraph (4) of subdivision (b) of Section 10631.

(g) (1) Subject to paragraph (2), the governing body of each public water system shall submit the assessment to the city or county not later than 90 days from the date on which the request was received. The governing body of each public water system, or the city or county if either is required to comply with this act pursuant to subdivision (b), shall approve the assessment prepared pursuant to this section at a regular or special meeting.

(2) Prior to the expiration of the 90-day period, if the public water system intends to request an extension of time to prepare and adopt the assessment, the public water system shall meet with the city or county to request an extension of time, which shall not exceed 30 days, to prepare and adopt the assessment.

(3) If the public water system fails to request an extension of time, or fails to submit the assessment notwithstanding the extension of time granted pursuant to paragraph (2), the city or county may seek a writ of mandamus to compel the governing body of the public water system to comply with the requirements of this part relating to the submission of the water supply assessment.

(h) Notwithstanding any other provision of this part, if a project has been the subject of a water supply assessment that complies with the requirements of this part, no additional water supply assessment shall be required for subsequent projects that were part of a larger project for which a water supply assessment was completed and that has complied with the requirements of this part and for which the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has concluded that its water supplies are sufficient to meet the projected water demand associated with the proposed project, in addition to the existing and planned future uses, including, but not limited to, agricultural and industrial uses, unless one or more of the following changes occurs:

(1) Changes in the project that result in a substantial increase in water demand for the project.

(2) Changes in the circumstances or conditions substantially affecting the ability of the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), to provide a sufficient supply of water for the project.

(3) Significant new information becomes available which was not known and could not have been known at the time when the assessment

was prepared.

10911. (a) If, as a result of its assessment, the public water system concludes that its water supplies are, or will be, insufficient, the public water system shall provide to the city or county its plans for acquiring additional water supplies, setting forth the measures that are being undertaken to acquire and develop those water supplies. If the city or county, if either is required to comply with this part pursuant to subdivision (b), concludes as a result of its assessment, that water supplies are, or will be, insufficient, the city or county shall include in its water supply assessment its plans for acquiring additional water supplies, setting forth the measures that are being undertaken to acquire and develop those water supplies. Those plans may include, but are not limited to, information concerning all of the following:

(1) The estimated total costs, and the proposed method of financing the costs, associated with acquiring the additional water supplies.

(2) All federal, state, and local permits, approvals, or entitlements that are anticipated to be required in order to acquire and develop the additional water supplies.

(3) Based on the considerations set forth in paragraphs (1) and (2), the estimated timeframes within which the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), expects to be able to acquire additional water supplies.

(b) The city or county shall include the water supply assessment provided pursuant to Section 10910, and any information provided pursuant to subdivision (a), in any environmental document prepared for the project pursuant to Division 13 (commencing with Section 21000) of the Public Resources Code.

(c) The city or county may include in any environmental document an evaluation of any information included in that environmental document provided pursuant to subdivision (b). The city or county shall determine, based on the entire record, whether projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses. If the city or county determines that water supplies will not be sufficient, the city or county shall include that determination in its findings for the project.

10912. For the purposes of this part, the following terms have the following meanings:

(a) "Project" means any of the following:

(1) A proposed residential development of more than 500 dwelling units.

(2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.

(3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.

(4) A proposed hotel or motel, or both, having more than 500 rooms.

(5) 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.

(6) A mixed-use project that includes one or more of the projects specified in this subdivision.

(7) 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.

(b) If a public water system has fewer than 5,000 service connections, then "project" means any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of the public water system's existing service connections, or a mixed-use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that would represent an increase of 10 percent or more in the number of the public water system's existing service connections.

(c) "Public water system" means a system for the provision of piped water to the public for human consumption that has 3000 or more service connections. A public water system includes all of the following:

(1) Any collection, treatment, storage, and distribution facility under control of the operator of the system which is used primarily in connection with the system.

(2) Any collection or pretreatment storage facility not under the control of the operator that is used primarily in connection with the system.

(3) Any person who treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption.

10914. (a) Nothing in this part is intended to create a right or entitlement to water service or any specific level of water service.

(b) Nothing in this part is intended to either impose, expand, or limit any duty concerning the obligation of a public water system to provide certain service to its existing customers or to any future potential customers.

(c) Nothing in this part is intended to modify or otherwise change existing law with respect to projects which are not subject to this part.

(d) This part applies only to a project for which a notice of preparation is submitted on or after January 1, 1996.

10915. The County of San Diego is deemed to comply with this part if the Office of Planning and Research determines that all of the following conditions have been met:

(a) Proposition C, as approved by the voters of the County of San Diego in November 1988, requires the development of a regional growth management plan and directs the establishment of a regional planning and growth management review board.

(b) The County of San Diego and the cities in the county, by agreement, designate the San Diego Association of Governments as that review board.

(c) A regional growth management strategy that provides for a comprehensive regional strategy and a coordinated economic development and growth management program has been developed pursuant to Proposition C.

(d) The regional growth management strategy includes a water

element to coordinate planning for water that is consistent with the requirements of this part.

(e) The San Diego County Water Authority, by agreement with the San Diego Association of Governments in its capacity as the review board, uses the association's most recent regional growth forecasts for planning purposes and to implement the water element of the strategy.

(f) The procedures established by the review board for the development and approval of the regional growth management strategy, including the water element and any certification process established to ensure that a project is consistent with that element, comply with the requirements of this part.

(g) The environmental documents for a project located in the County of San Diego include information that accomplishes the same purposes as a water supply assessment that is prepared pursuant to Section 10910.

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