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September 16, 2014

The Honorable City Council
c/o Office of the City Clerk
Room 395, City Hall
Mail Stop 160

Attention: Councilmember Felipe Fuentes
Chair, Energy and Environment Committee

Honorable Members:

Subject: Council File No. 14-0078-S1 (Council Motion) Made by Councilmember Gilbert A. Cedillo on Strategies, Methods, and Recommendations for Effective Drought Management and Water Conservation

This letter is in response to a Los Angeles City (City) Council Motion adopted July 2, 2014. The Council Motion requests the Los Angeles Department of Water and Power (LADWP) and Los Angeles Department of Public Works Bureau of Sanitation (LASAN), with assistance of the Chief Legislative Analyst, City Administrative Officer, Los Angeles Department of Building and Safety (LADBS), and Department of City Planning to report on strategies and methods being used to manage drought conditions in arid climates; and recommendations for implementing effective drought-management and water conservation strategies in our City and region.

I. Drought Management Strategies and Methods for Arid Climates

Effective management of water resources in regions with arid climates requires both short-term response tools to address immediate dry conditions, and long-term planning to adapt communities to dry conditions and changing climate.

Short-Term Response

Short-term response tools in urban environments typically focus on reducing water demand by encouraging, promoting, and/or requiring water conservation and water use efficiency measures. Short-term response measures in rural environments may include fallowing farmland, transferring water, implementing agricultural water-use efficiency

measures, or reallocating water from non-essential uses. Short-term response tools are often outlined in drought-response or emergency water conservation plans and implemented through regulation or ordinance.

One recent example of a short-term response tool is the California State Water Resources Control Board (SWRCB) Resolution No. 2014-0038, which adopted an emergency regulation for statewide urban water conservation. This SWRCB emergency regulation is intended to reduce outdoor urban water use by prohibiting and imposing fines on certain wasteful uses, such as washing down sidewalks and driveways; using hoses without shut-off nozzles to wash motor vehicles; and using potable water in fountains and water features that do not include recirculation systems. The regulation also requires large water agencies to activate Water Shortage Contingency Plans to a level where outdoor irrigation restrictions are mandatory. The SWRCB resolution was adopted July 15, 2014. The emergency regulation went into effect July 29, 2014, following approval by the State Office of Administrative Law, and will remain in effect for 270 days.

Long-Term Planning

Long-term planning can incorporate many types of projects and programs. Capital projects to build or increase surface water or groundwater storage capacity, lower reservoir intakes, repair and upgrade infrastructure, or clean up contaminated groundwater supplies can be implemented. Programs can be developed to increase capture of stormwater to augment or offset potable water supplies, enhance conservation incentives, or promote recycled water use. Long-term efforts can also include the development, adoption, and implementation of new laws, regulations, ordinances, codes and standards.

The City's long-term planning document to address dry conditions and climate change is the LADWP's 2010 Urban Water Management Plan (UWMP). UWMP is prepared and adopted every five years, as required under the California Urban Water Management Planning Act (1984). The main goal of UWMP is to forecast future water demands and water supplies under average and dry year conditions; identify future water supply projects over a 25-year planning horizon, such as recycled water pipelines and stormwater capture facilities; report on water conservation best management practices (BMP); and provide strategies for single and multiple dry-year scenarios. LADWP is currently in the early stages of preparing the 2015 UWMP. The UWMP preparation process has become the mechanism for LADWP to regularly review, update, and report on both our short-term response tools and long-term water resource planning efforts.

LADWP and LASAN also collaborated on the City's 2006 Water Integrated Resources Plan (IRP). IRP sought to integrate water supply, water conservation, water recycling, and runoff management issues with wastewater facilities planning through a regional

watershed approach. This approach enlisted the public in the planning, design and development process at a very early stage to help guide the IRP's development. IRP resulted in a recommended alternative with multiple benefits to be implemented both in the short and long-term.

Both the 2010 UWMP and the 2006 Water IRP identify increased investments in local water resource development including water conservation, water recycling, stormwater capture, and remediation of groundwater contamination. These plans set a course to cut the City's average dependency on purchased imported water in half by 2035. LADWP is developing plans to accelerate this goal by up to 10 years.

The next step in the collaborative process started by the Water IRP is the One Water LA 2040 Plan (One Water LA). Phase I of One Water LA is currently underway with development of the "One Water" Vision and Objectives incorporating the input and engagement of all City Departments involved in water initiatives as well as stakeholders. This will be followed by the drafting of guiding principles with extensive stakeholder input and involvement. Second phase of the process consists of technical studies and continuing stakeholder collaboration for identification and comparison of projects policies and alternatives. The goal is to complete the One Water Plan within three to four years. More information regarding this initiative was provided in a report to the Energy and Environment Committee from LASAN dated March 27, 2014, (Council File No. 13-1336).

LADWP will continue to work with LASAN, other City departments, outside agencies, and the public to identify and implement cost-effective projects and programs to develop local water supplies and further reduce the City's dependence on purchased imported water.

II. Recommendations for Effective Drought Management and Water Conservation in the City

Currently, the 2010 UWMP contains LADWP's most recent recommendations regarding drought management and water conservation for the City. As mentioned previously, LADWP prepares a UWMP every five years, as required by state law. LADWP staff is in the beginning stages of revising and updating the plan, which is due in 2015. This process will include multiple levels of review and stakeholder engagement. The 2010 UWMP is available on LADWP's Web site and can be downloaded using the following link:
<http://www.ladwp.com/docs/QOELLADWP005416>

Key components of the City's overall response to dry conditions are described briefly in the following sections.

Short-Term Response

Metropolitan Water District of Southern California (MWD) – Water Supply Allocation Plan

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 to supplement its supplies from local sources and the Los Angeles Aqueduct.

LADWP previously worked closely with MWD in developing a plan for allocating MWD water supplies during periods of shortage. On February 12, 2008, the MWD Board adopted its Water Supply Allocation Plan (WSAP). LADWP supported the adoption of this plan to equitably allocate shortages among its member agencies based on need with adjustments for growth, local investments, and changes in supply conditions, demand hardening, and water conservation programs. Severe penalty is imposed for member agencies using more than their allocated MWD supplies.

In response to the 2009 regulatory restrictions on water supplies from Northern California, the MWD Board implemented the WSAP on April 14, 2009, for the first time, and supply deliveries to the member agencies were reduced by 10 percent between July 1, 2009, and June 30, 2011. Los Angeles was able to reduce demands to remain within its allocation of water from MWD.

In the current drought, more than 75 percent of the City's water is purchased from MWD. If the extreme prolonged drought conditions continue into 2015, MWD may need to allocate supplies to its member agencies in accordance with the WSAP. Accordingly, MWD has been in discussions with member agencies recently on possible modifications to the WSAP allocation formula in preparation for possible implementation next year if dry conditions continue and storage reserves are further depleted. To protect the interest of City ratepayers, LADWP will continue to engage in these discussions to evaluate any proposed modifications to the WSAP formula through a comprehensive and collaborative process to ensure proposed adjustments are equitable, recognize the City's extraordinary conservation efforts, and contribute to a more efficient and effective allocation of MWD supplies.

Emergency Water Conservation Plan Ordinance Implementation

Every five-years as part of the UWMP process, LADWP develops and submits to the State of California the City's water shortage contingency plan. The Los Angeles City Municipal Code Chapter XII, Article I, Emergency Water Conservation Plan Ordinance (Ordinance) is the City's water shortage contingency plan. The Ordinance specifies conservation phases and actions that can be implemented in response to dry-year conditions causing water supply shortages. Below is a summary of the conservation phase and associated actions

that the City is currently taking in response to Governor Brown's Drought State of Emergency Declaration:

The City has been implementing and enforcing Phase II of the Ordinance since 2009. As a result, LADWP customers have achieved reductions in total water use of over 13 percent since the prior dry period of 2007. Through continued implementation of Phase II, the City will remain in compliance with requirements of SWRCB's new emergency regulation for statewide urban water conservation discussed previously.

Phase II prohibits wasteful uses, and restricts outdoor landscape irrigation. Prohibited wasteful water uses and practices include the following:

- Water leaks left unattended
- Outdoor irrigation between the hours of 9:00 a.m. to 4:00 p.m.
- Outdoor irrigation resulting in water flow leaving the property
- Outdoor irrigation during rain events
- Car washing with a hose, unless an automatic shut-off device is attached
- Water served to customers in eating establishments, unless requested
- Outdoor irrigation with non-conserving nozzle sprinkler systems for more than one 8-minute cycle per watering day
- Outdoor irrigation with conserving nozzle sprinkler systems for more than two 15-minute cycles per watering day
- Large landscape irrigation systems without automatic shutoff rain sensors
- Washing paved surfaces (sidewalks, walkways, driveways, or parking areas) unless using an LADWP-approved water conserving spray cleaning device
- Water for decorative fountains, ponds, or lakes unless the water is part of a recirculating system
- Installation of single-pass cooling systems in buildings requesting new water service

- Installation of non-recirculating systems in new commercial laundry facilities
- Installation of non-recirculating systems in new conveyor car washes
- Daily towel and linen service, unless requested by hotel and motel guests

Phase II also bans landscape irrigation on days other than Monday, Wednesday, or Friday for odd-numbered street addresses and Tuesday, Thursday, or Sunday for even-numbered street addresses.

To ensure customers are aware of and follow the Ordinance, LADWP has ramped up active enforcement of Phase II restrictions, with a primary focus on educating customers on prohibited uses and outdoor watering restrictions. Citations are given to customers that continue to waste water after LADWP has reached out to them. Under enforcement, failure to comply is subject to penalties, which can range from a written warning for a first violation to monetary fines and water service restrictions or shutoff for continued non-compliance. LADWP hired four full-time staff to implement the Ordinance, and will use additional water conservation staff as needed. The implementation team is called the Water Conservation Response Unit, or the "Water CRU." To increase visibility and promote water conservation, Water CRU staff drive City vehicles that are wrapped with informative water conservation messaging.

Media Campaign

Another short-term response measure is LADWP's effort to increase customer awareness of Ordinance requirements and the on-going dry conditions. Since Governor Brown declared a State of Emergency due to the drought in January 2014, LADWP has expanded the water conservation media campaign to remind customers about Phase II requirements under the Ordinance. Specifically the campaign focuses on the ongoing three-day per week outdoor landscape irrigation restrictions, and the LADWP's financial incentive program for California friendly landscaping, called "Cash-in-Your-Lawn." Since this media campaign began, customer applications for "Cash-in-Your-Lawn" have increased tenfold.

LADWP is continuing the media campaign investment through the summer months using a variety of media, including television ads, bus signage, movie theater ads, traditional radio spots, print ads, and social media such as Facebook, Twitter, YouTube, along with on-camera interviews and other free media. From January to July 2014, LADWP has invested \$500,000 in ads promoting water conservation.

These ads included the following:

- Movie theater ads on 110 screens, with a total of over 58,000 viewings
- Bus tail ads displayed on 200 different City routes
- Bus shelters, bus benches, and public restroom ads, including displays on 90 bus shelters and 15 restrooms
- Online ads for 15 local sites in the City
- Conservation messaging in various newspapers, including the Los Angeles Times, City Watch, La Opinion (Spanish), and Daily News
- Radio spots on 12 stations with a total of 900 airings
- Outreach to 30 community newspapers, including some printed in Korean, Chinese, and Vietnamese

Looking forward, LADWP plans to spend another \$500,000 on its ad campaign from September through December 2014.

LADWP actively responds to news requests to share information on LADWP's drought response and educate customers about the importance of water conservation. From January to July 2014, LADWP staff has participated in or been featured in the following:

- 86 radio interviews
- 25 television interviews
- 95 online news articles
- 92 print news articles

These include interviews with Los Angeles Times, USA Today, La Opinion (Spanish), Daily News, Fox, and NBC.

Messaging continues to focus on informing customers about current and projected dry-year conditions, and the City's prohibited uses and outdoor landscape watering restrictions. The media campaign also encourages customers to voluntarily further reduce outdoor water use and modify their water use behavior.

LADWP recently mailed out water conservation postcards to all of our 470,000 single-family residential customers. The postcards remind customers about watering restrictions in effect, educate them on watering times and days based on their address, and direct them to our water conservation Web site at www.LADWP.com/WaterConservation.

New Contracts

LADWP is in the process of finalizing two new contracts to assist with our water conservation programs. The first contract is for a pilot study of customized customer water use reports along with an associated web portal. These reports will graphically show customers how much water they use in comparison to neighboring water efficient customers, and provide customized tips on how to reduce their use. The second contract will assist in development of a new interactive Web site which will assist customers in designing California Friendly landscapes, which comply with requirements for our Cash-in-Your-Lawn program. Both projects are planned to start in September 2014.

LADWP also initiated a Water Conservation Potential Study (Study) in June 2014 to explore new ways for the City to promote water conservation. The Study will determine the impact of previous and current water conservation programs across all customer sectors; identify sectors that still have potential for additional conservation under current programs and strategies; and investigate new and emerging water conserving technologies. The Study will allow LADWP to accurately measure potential for further water conservation during the next 25 years and will assist with long-term water supply planning. Results of the Study will be reflected in the 2015 UWMP.

Partnerships With Other Agencies

LADWP assists other City Departments and other public agencies in leveraging LADWP incentive funds to retrofit their facilities with water efficient hardware. Examples of significant accomplishments achieved through partnerships are provided below:

- In an effort to reduce water waste and identify areas of potential water conservation, LADWP provided on-site water audit training for the City's Department of General Services (GSD) plumbers, Department of Recreation and Parks (RAP) landscapers and Port of Los Angeles (POLA) staff, and conducted nearly 500 facility audits.
- A Memorandum of Understanding (MOU) was signed between LADWP and GSD to install 875 water-efficient urinals and 325 high-efficiency toilets in City facilities.

- Ten high-use City facilities have been retrofitted with water efficient toilets, urinals, and faucets saving approximately 23 acre-feet per year (AFY). Locations include City Hall, City Hall East, Pershing Square, and LADWP headquarters.
- A \$3 million per year grant from LADWP was utilized by RAP to install 155 smart controllers at 67 parks, resulting in a savings of 12 percent of normal water usage. Additionally, the MOU has funded water use efficiency improvements at 18 park facilities saving over 400 AFY.

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 through Twitter, Facebook, YouTube, newspapers, radio, television, and other types of media; outreach to Homeowner Associations and Neighborhood Councils; distribution of hotel towel door hangers and restaurant table tent cards; and ramping up marketing of expanded water conservation incentive and rebate programs.

Encouraging Regional Conservation Measures

LADWP has worked with MWD to double the budget for their conservation incentives program and to encourage all water agencies in their service region to promote water conservation, and adopt water conservation ordinances that include prohibited uses and enforcement. One recent accomplishment includes the addition of a new \$75 incentive for residential customers to install a rain barrel on their property.

Conservation Rebates and Incentives

LADWP continues to expand its conservation rebates and incentives for homeowners and business owners. The conservation rebate and incentive programs include the Commercial Rebate Program, Residential Rebate Program, and Technical Assistance Program. A full listing of programs available to LADWP customers is provided on the LADWP Web site at www.LADWP.com/WaterConservation. In addition, as part of the City's ongoing effort to encourage customers to adopt "active" 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 kitchen faucet aerators and shower heads free-of-charge.

LADWP's California Friendly Landscape Incentive Program, called "Cash-in-your-Lawn," recently increased its incentive to \$3 per square foot of turf removed and replaced with low-water-using plants, mulch, and permeable hardscapes or artificial turf. Information on