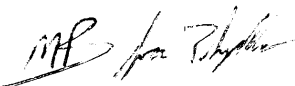


PASADENA WATER AND POWER

MEMORANDUM

June 1, 2015

TO: Honorable Mayor and City Council

FROM: Phyllis Currie, General Manager 

SUBJECT: IMPLEMENT LEVEL 2 WATER SUPPLY SHORTAGE MEASURES AS DESCRIBED IN PASADENA MUNICIPAL CODE ("PMC") CHAPTER 13.10.

On May 26, 2015, the Municipal Services Committee ("MSC") considered several recommendations from staff for achieving the 28% water conservation target set for Pasadena by the State Water Resources Control Board. The MSC supported the staff recommendations and recommended additional actions be approved at the June 1, 2015 public hearing.

STAFF RECOMMENDATION:

It is recommended that the City Council:

1. Find that the implementation of Level 2 Water Supply Shortage water conservation measures are categorically exempt from the California Environmental Quality Act ("CEQA") pursuant to State CEQA Guidelines Section 15307 (Actions by Regulatory Agencies for the Protection of Natural Resources);
2. Establish a water conservation target of 28%;
3. Adopt implementation of the Level 2 Water Supply Shortage measures, as well as additional measures described herein, by way of public proclamation (Attachment A) pursuant to Pasadena's Water Waste Prohibitions and Water Supply Shortage Plan Ordinance (PMC 13.10); and,
4. Direct staff to return with additional water conservation proposals if sufficient progress towards conservation target is not met.

ADDITIONAL MUNICIPAL SERVICES COMMITTEE RECOMMENDATIONS:

1. Establish a water conservation target of 15% by the end of July 2015 ("Interim Goal");
2. Adopt "Additional Mandated Measures" described herein pursuant to (PMC 13.10);
3. Direct staff to implement the "Additional Water Conservation Programs" described herein; and,
4. Direct staff to return with additional water conservation proposals, potentially including implementation of Level 3 Water Supply Shortage plan, if the Interim Goal is not met.

06/01/2015
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DISCUSSION

A comprehensive summary of the combined staff and MSC recommendations may be found in Table I on page 4 of this memorandum.

Interim Goal

The MSC recommended that an interim water conservation goal be established in order to ensure that timely course corrections can be made if necessary to meet the 28% conservation goal. Progress will be tracked weekly, and staff will be directed to recommend additional conservation measures by the end of August, possibly including a move to Level 3, if the Interim Goal to reduce water use by 15% from 2013 levels is not met by the end of July 2015.

Adopt Additional Mandated Measures

PMC 13.10.060 provides that the City Council may order implementation of other water conservation measures in addition to those set forth in the ordinance. In order to comply with regulations adopted by the State Water Resources Control Board, staff and MSC recommends the following additional measures be adopted:

- A. Prohibit the irrigation of turf within 48-hours following a measurable precipitation; and,
- B. Prohibit washing down hard or paved surfaces using potable water, except where necessary to alleviate safety or sanitary hazards (this would revoke the existing exemption for pressure washers or water brooms).
- C. Require that all master-metered multifamily properties certify installation of water efficient shower heads and aerators; and,
- D. Require residential properties be retrofitted to current code upon resale of the property.

As it will take several months to implement the requirements contemplated in recommendations C&D, property owners would be given until September 30, 2015 to self-certify installation of water efficient shower heads and aerators on faucets. Failure to comply by October 1, 2015 would be considered a first violation under PMC13.10. Second and subsequent violations would occur on the 1st of each month starting on November 2015 until the certification is received.

If adopted by the City Council, the additional mandates recommended by the MSC would need to be incorporated into the water shortage proclamation (Attachment A). They would be temporary measures that become effective upon publication of the updated proclamation and expire at such time as the City Council determines a water shortage no longer exists. To make these requirements permanent, an ordinance amending the Pasadena Building Code (which does not apply to water customers outside of the City) would need to be adopted. State law requires that a city adopt specific findings as to the topographic, geological, and climatic conditions to justify local amendments to the applicable California building codes.

California Senate Bill 407 (2009) requires that water-conserving plumbing fixtures be installed at single-family residential properties on or before January 1, 2017, and at multifamily residential and commercial properties on or before January 1, 2019. Starting January 1, 2017 sellers of properties must disclose any noncompliant plumbing fixtures in writing to the buyer. Thus, approval of the retrofit on resale recommendation would accelerate implementation of the state mandate.

Implement Additional Water Conservation Programs

In addition to the water shortage plan, water waste prohibitions and other mandates under PMC13.10, the City offers incentives, education, and information to help customers reduce their water use through various water conservation programs.

The MSC expressed support for many of the ongoing and new water conservation programs that are currently offered or being pursued, including the development of a “laundry to landscape” greywater program and a new water use reporting system that helps residents understand and reduce their water consumption.

The MSC recommended that the City Council direct staff to expeditiously implement the following new Additional Water Conservation Programs in order to help meet the 28% water conservation target:

- A. Provide enhanced Level 2 Water Supply Shortage Plan enforcement;
- B. Provide the Pasadena community with a weekly update of the City’s water conservation status;
- C. Provide the City’s high-use residential water customers with additional information and resources to reduce water use;
- D. Provide free fixtures to enable master-metered multifamily properties to install water efficient shower heads and aerators by September 2015 in compliance with the proposed mandate;
- E. Implement a permanent Retrofit Upon Resale Ordinance for property sold in the City; and
- F. Prepare an ordinance requiring new hotels to include plumbing to reuse water used by laundry equipment for on-site irrigation purposes

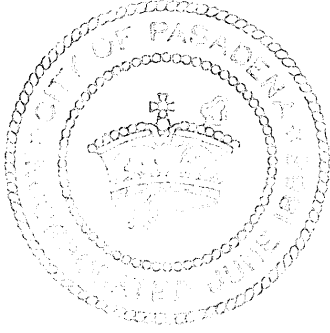
Funding for the additional water conservation programs recommended by the MSC will be identified in the Water Fund budget to implement these programs. At this time, staff has not identified a need to update the FY2016 budget proposal or for the City Council to amend the FY2015 budget.

Rapid implementation of the additional water conservation programs will be pursued to maximize the water savings impact, however where procurement of products and services is necessary, these new programs are not likely to be in place soon enough to have any impact on meeting the Interim Goal at the end of July 2015.

Staff is currently adding and deploying resources to inform the public about new goals and mandates, and to ramp up water waste enforcement activities in order to maximize water conservation progress over the next two months.

Table I - Comprehensive Summary of Recommendations

Water Conservation Program	Est Cost	Council Actions Required
Establish 28% Water Conservation Target and Implement Level 2 Water Supply Shortage Plan	\$0	Adopt at Public Hearing per PMC 13.10
Establish Interim Water Conservation Goal of 15% by end of July 2015; Direct staff to return with additional recommendations if Interim Goal is not met	\$0	Adopt at Public Hearing per PMC 13.10
Prohibit the irrigation of turf within 48-hours following a measurable precipitation	\$0	Adopt at Public Hearing per PMC 13.10.060
Prohibit washing down hard or paved surfaces using potable water	\$0	Adopt at Public Hearing per PMC 13.10.060
Purchase "NO-DES" system to eliminate discharge and waste from flushing activities	\$300,000 + O&M	Authorize contract for equipment purchase
Provide water efficiency reports to residential customers	\$175,000 per year	Authorize contract(s) for software and services
Implement "laundry to landscape" greywater assistance program	\$35,000	None anticipated at this time
Provide enhanced Level 2 Water Supply Shortage Plan enforcement	\$137,280	Authorize contract for services, if necessary
Provide the Pasadena community with a weekly update of the City's water conservation status	\$98,200	None anticipated at this time
Provide the City's high-use residential water customers with additional information and resources	\$2,000	None anticipated at this time
Require that all master-metered multifamily properties install water efficient shower heads and aerators and provide free water efficient shower heads and aerators to help multifamily properties meet the proposed mandate	\$230,000	Adopt at Public Hearing per PMC 13.10.060 and authorize procurement contract through expedited process
Require that residential properties be retrofit upon resale by implementing a permanent Retrofit Upon Resale Ordinance	\$40,000	Adopt at Public Hearing per PMC 13.10.060 and adopt an ordinance amending the City's Building Code
Prepare an ordinance requiring new hotels to reuse water from laundry equipment for on-site irrigation purposes		
Total	\$1,017,480	



Agenda Report

June 1, 2015

TO: City Council

THROUGH: Municipal Services Committee (May 26, 2015)

FROM: City Manager

SUBJECT: IMPLEMENT LEVEL 2 WATER SUPPLY SHORTAGE MEASURES AS DESCRIBED IN PASADENA MUNICIPAL CODE ("PMC") CHAPTER 13.10.

RECOMMENDATION:

It is recommended that the City Council:

1. Find that the implementation of Level 2 Water Supply Shortage water conservation measures are categorically exempt from the California Environmental Quality Act ("CEQA") pursuant to State CEQA Guidelines Section 15307 (Actions by Regulatory Agencies for the Protection of Natural Resources);
2. Establish a water conservation target of 28%.
3. Adopt implementation of the Level 2 Water Supply Shortage measures, as well as additional measures described herein, by way of public proclamation (Attachment A) pursuant to Pasadena's Water Waste Prohibitions and Water Supply Shortage Plan Ordinance (PMC 13.10); and,
4. Direct staff to return with additional water conservation proposals if sufficient progress towards conservation target is not met.

MUNICIPAL SERVICES COMMITTEE AND ENVIRONMENTAL ADVISORY COMMISSION REVIEW:

These recommendations were presented to the Environmental Advisory Commission ("EAC") on May 19, 2015 and the Municipal Services Committee on May 26, 2015. The EAC approved a motion to authorize their ad hoc Water Resources Management Subcommittee to submit written comments to the City Council recommending that the Level 3 Water Supply Shortage Plan (one day per week watering during warm months) be adopted, with provisions to protect trees and the aesthetic beauty of landscaping, and also recommending additional funding for turf replacement and other conservation programs, as well as encouraging additional water capture and use.

EXECUTIVE SUMMARY:

On July 28, 2014, the City Council made a determination that a water shortage exists, adopted a 20% water conservation target compared to calendar year 2013, and adopted the Level 1 Water Supply Shortage Plan pursuant to PMC 13.10.035. The City has made great strides towards conserving water. As of April 30, 2015, the fiscal year to date water use by all PWP customers has decreased 8.6% from calendar year 2013 levels, despite the increased temperatures and lack of rain; however, as California water supply conditions continue to degrade, Pasadena must expand its water conservation efforts.

As the drought conditions have worsened in California, the Governor has issued several executive orders calling for extraordinary water conservation measures. As a result, the State Water Resources Control Board ("State Water Board") has established a requirement for Pasadena Water and Power ("PWP") to reduce overall customer water use by 28% from calendar year 2013 levels, placed a statewide ban on irrigating ornamental turf on public street medians with potable water, and has imposed numerous other water waste prohibitions (see Attachment 2). California water agencies face the prospect of fines up to \$10,000 per day for non-compliance.

The Metropolitan Water District ("MWD"), which supplies about 60% of PWP's water needs, has implemented their Water Supply Allocation Plan that requires member agencies to reduce their water purchases from MWD by 15% or face penalty charges for exceeding their allocation.

Since the majority of water used by PWP customers is for landscape irrigation, implementation of the Level 2 Water Supply Shortage is a critical action to further reduce water usage in the City. The Level 2 Water Supply Shortage plan restricts outdoor watering to two days per week from April to October (Level 1 allows three days during this period). Like Level 1, Level 2 limits watering to one day per week from November to March. In addition, the time allowed to repair water leaks is reduced to forty-eight (48) hours. Finally, filling or re-filling ornamental lakes or ponds is prohibited, except as needed to sustain aquatic life.

On May 18, 2015, a public workshop was held during the City Council meeting to seek feedback on the preliminary staff recommendations and other water conservation ideas from the public. The staff report for this workshop (Attachment B) provides additional background information on the drought, water use by PWP customers, the need to conserve, PWP water conservation programs, actions taken by the City and PWP, and water conservation efforts that are under development. While suggestions and feedback from the workshop are being evaluated, the recommendations for action have not changed as a result. See Attachment C for a summary of public comments and staff responses.

Implementing Level 3 plan, as suggested by the EAC and some members of the public, was considered by staff and would likely result in PWP's water use reductions to meet or exceed the 28% conservation goal. However, the one day per week watering limits

from April through October would likely result in significant landscape loss over the coming summer. Like most other water agencies, staff recommends starting with two day watering limits at this time as a necessary step towards meeting Pasadena's 28% water conservation goal.

Staff will monitor water usage and provide monthly reports on progress. PWP will present more aggressive recommendations to the Municipal Services Committee in August 2015 if the City is not making progress towards the target.

BACKGROUND:

PWP serves approximately 40% of its water demand using local groundwater from the Raymond Basin, and the remainder is imported water purchased from MWD. Due to declining water levels, the Raymond Basin has reduced water pumping rights by 20% over the last several years. Given the cutbacks in supplies from the State Water Project and extremely low water storage in reservoirs and snowpack, MWD has implemented its Water Supply Allocation Plan that calls on PWP and other MWD customers to reduce water consumption by approximately 15%.

Level 2 Water Waste Prohibitions

Pasadena's Water Waste Prohibitions and Water Supply Shortage Plans Ordinance (PMC 13.10) includes thirteen permanent mandatory restrictions and four levels of Water Supply Shortages with increasingly restrictive measures to address water shortages (additional details provided in Attachment B).

The City of Pasadena is currently implementing a Level 1 Water Supply Shortage Plan which, combined with customer education and conservation programs, has thus far resulted in a 8.6% decrease in water usage. Although the Level 1 Water Supply Shortage plan has had beneficial impacts, it hasn't been enough to reach the current local target of 20% or the expected State target of 28%. For those reasons it is recommended that the City move to Level 2 of the Water Supply Shortage plan.

In addition to the permanent mandatory water waste restrictions, a Level 2 Water Supply Shortage (PMC 13.10.045) would:

1. Further Limit Watering Days: Watering or irrigating of lawn, landscape or other vegetated area is limited to two (2) days per week from April 1 through October 31, and no more than one (1) day per week from November 1 through March 31, on a schedule established and posted by PWP. This subsection does not apply to landscape irrigation zones that exclusively use low flow drip type irrigation systems where no emitter produces more than two (2) gallons of water per hour. This subsection also does not apply to watering or irrigating by use of a hand-held bucket or similar container, or by use of a hand-held hose equipped with a water shut-off nozzle or device; for very short periods of time for the express purpose of adjusting or repairing an irrigation system; or for maintenance of vegetation, including fruit

trees and shrubs, intended for consumption.

PWP has established the following schedule for watering or irrigating lawns:

- Tuesdays and Saturdays between April 1 and October 31; and
- Customers may choose to water on one day, either Tuesday or Saturday, between November 1 and March 31.

PWP may establish alternate schedules for specific customers under certain circumstances.

2. Require that Leaks, Breaks or Malfunctions are Fixed: Leaks, breaks or other malfunctions in the water user's plumbing or distribution system shall be repaired within forty-eight (48) hours of notification by PWP unless other arrangements are made with PWP.
3. Limit the Filling of Ornamental Lakes or Ponds: Filling or re-filling ornamental lakes or ponds is prohibited, except to the extent needed to sustain aquatic life

These water conservation measures will become effective immediately upon publication and remain in effect until such time as the City Council determines that a water supply shortage no longer exists or that another water supply shortage plan is necessary.

Additional Water Shortage Measures

PMC 13.10.060 provides that the City Council may order implementation of other water conservation measures in addition to those set forth in the ordinance.

On March 17, 2015 and May 5, 2015, the State Water Resources Control Board adopted expanded emergency water conservation regulations that include specific potable water use restrictions. The City of Pasadena has already implemented the water conservation measures required by the Board, with the following exceptions:

- Prohibit the irrigation of turf within 48-hours following a measurable precipitation; and,
- Prohibit washing down hard or paved surfaces using potable water, except where necessary to alleviate safety or sanitary hazards (this would revoke the existing exemption for pressure washers or water brooms).

PWP recommends that the City Council order that these two additional water shortage measures be implemented at this time.

A number of additional water shortage measures were identified for discussion in Attachment 5 of the original staff report (Attachment B), but are not recommended at this time. Further analysis is needed on the potential water savings, feasibility, community impact, and safety issues associated with these potential water saving measures before they are recommended for adoption by the City Council.

Additional City Council Actions for Consideration

It would be desirable to see measurable progress achieved with the implementation of Level 2, such as, a 15% reduction by the end of July. In order to achieve higher levels of water savings, the City Council may wish to increase funding for water waste enforcement and water conservation programs in the FY2016 budget. Attachment D includes a list of potential programs that could be accelerated with additional funding. A significant increase in enforcement would cost an estimated \$137,280. If all of the conservation incentives are implemented, they would reduce water use by 2.4% at an estimated cost of \$2.3 million. Timely implementation of these programs, which is essential to have any measurable impact towards the 15% interim target would require accelerated procurement through negotiated or sole-source contracts in some cases. To the extent any of these additional programs are implemented, funding will be provided from the Water Fund balance and recovered through rate increases as part of the next water rate ordinance update.

Flexibility for Large Irrigation Customers

Functional turf, such as athletic fields and golf courses, cannot survive summer heat with limited watering days. Also, customers with large turf areas often cannot irrigate their entire property in a single day due to irrigation system limitations. While schedule accommodations are necessary and appropriate for functional turf, all large water consumers should be expected to work towards reducing their consumption by 28% from appropriate benchmark levels.

Exemptions for Trees and Shrubs

Staff will promote efficient irrigation of trees, shrubs, and newly-established drought tolerant landscapes. It is recommended that the City Council authorize flexibility in implementing water waste prohibitions as needed to efficiently irrigate and sustain the life of trees throughout PWP's service territory or valuable shrubs and vegetation, particularly where a fire hazard may result from neglect.

Future Actions

Given that most of the water conservation measures have been in place for over five years, and PWP's water use is still well below historical norms, it will be challenging to achieve the local and State reduction goals. Staff will monitor water consumption monthly and report results to the City Council and the state. Various City Departments are working on new programs, outreach, and enforcement to encourage and incentivize reductions in potable water use. To the extent City Council approval is required to implement these actions, or additional water waste prohibitions and water measures are necessary to reach the 28% reduction goal, staff will return with appropriate follow-up recommendations in the future.

During the next several months, PWP staff will be updating its water cost of service model to reflect the most current costs and the water usage characteristics of PWP's customers. The updates will ensure that PWP's rates remain in compliance with Proposition 218. This analysis may result in recommendations to restructure PWP's

water rates to ensure that revenue requirements are met even with reduced water usage by PWP's customers. Some options that may be considered include:

- Restructured tiers to reflect reduced ground water availability;
- Penalty surcharge to be implemented if Pasadena exceeds its reduced allocation from MWD or incurs penalty charges from the state;
- Drought "penalty" for excessive usage;
- Implement fixed charges to recover a portion of costs, or conduct required Proposition 218 process to enable routine adjustment of the volumetric rate formula as provided in the Rate Ordinance to offset the impact of changing retail water sales volumes to ensure sufficient funding for capital investment at appropriate levels; and,
- Cost recovery for enhanced conservation programs.

Rate restructuring options will periodically be presented to the Municipal Services Committee and the City Council for consideration along with updates on the water conservation programs. Actual rate actions would be subject to the notification and public hearing requirements of Proposition 218.

COUNCIL POLICY CONSIDERATION:

The proposed additional water waste prohibitions will be implemented in accordance with Chapter 13.10 of the Pasadena Municipal Code. It will help PWP conserve water and stretch available supplies to meet customer needs.

ENVIRONMENTAL DETERMINATION:

The project has been determined to be exempt per Section 15307 of the CEQA Guidelines, Actions by Regulatory Agencies for Protection of Natural Resources. This exemption consists of actions by regulatory agencies as authorized by State law or local ordinance to assure maintenance of a natural resource (such as water) where the regulatory process involves procedures for protection of the resource. It has been determined that implementing a Level 2 Water Supply Shortage Plan will have no secondary environmental impacts because a significant amount of current water consumption is used to over water landscaping and runs off the target area into storm sewers or evaporates before it can percolate into the ground. It is estimated that many customers over water by as much as 50%. It is possible that reducing water consumption among those customers may actually improve the health of their landscaping. Furthermore, the Raymond Basin Management Board has already mitigated recharge issues by restricting pumping rights from the Raymond Basin effective July 1, 2009.

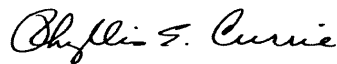
FISCAL IMPACT:

The recommended actions will result in reduced water consumption, Water Fund revenues and expenses and Water Fund net income. While the degree of water conservation cannot be predicted with certainty, the following table summarizes the approximate impacts assuming both a 10% and 20% reduction in water sales compared to the budgeted amounts for FY2016:

Budget Item	Low Financial Impact Estimate	High Financial Impact Estimate
Change in Water Revenue	(\$11.5 million)	(\$13.4 million)
Change in Water Cost	(\$8.4 million)	(\$6.5 million)
Change in Net Income	(\$3.1 million)	(\$6.9 million)


Implementing the Level 2 water waste prohibitions is not expected to result in significant increases to administrative or marketing costs, nor is it expected to result in significant revenues from violations. PWP has requested an additional \$120,000 in funding for PWP's share of water conservation incentive programs in the FY2016 budget, bringing PWP's total share to \$345,000 for FY2016.

Respectfully submitted,



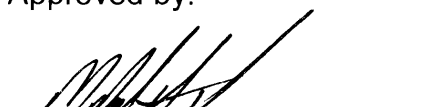
Phyllis E. Currie
General Manager
Water and Power Department

Prepared by:



Eric R. Klinkner
Assistant General Manager

Approved by:



MICHAEL J. BECK
City Manager

- Attachment A – Proclamation
- Attachment B – Staff Report for May 18, 2015 Public Workshop
- Attachment C – Public Comments from May 18, 2015 Public Workshop and
May 19, 2015 Environmental Advisory Commission Meeting
- Attachment D – Additional City Council Actions for Consideration