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To: [Brownlee, Sasha J.@DWR](mailto:Brownlee.Sasha.J.@DWR)
Cc: [Avila, Andria@DWR](mailto:Avila.Andria@DWR); [Brostrom, Peter@DWR](mailto:Brostrom.Peter@DWR)
Subject: FW: NGO Comments on the Water-Use Standards and Targets
Date: Tuesday, October 18, 2016 9:39:01 AM
Attachments: [NGO WaterUseStdComments_final.pdf](#)

Hi Sasha,

We just received these comments. diana

From: Heather Cooley [mailto:hcooley@pacinst.org]
Sent: Tuesday, October 18, 2016 9:30 AM
To: Gomberg, Max@Waterboards; Ekdahl, Erik@Waterboards; Oppenheimer, Eric@Waterboards; Brooks, Diana@DWR; Brostrom, Peter@DWR; Frame, Kent@DWR
Cc: Gunasekara, Amrith@CDFA; jamie.ormond@cpuc.ca.gov; Ashuckian, Dave@Energy; Burns, Gordon@EPA
Subject: NGO Comments on the Water-Use Standards and Targets

Good morning,

I respectfully submit the attached comments on the proposed framework for the water-use standards and targets. These comments were developed in collaboration with colleagues at Natural Resources Defense Council, WaterNow Alliance, California Coastkeeper Alliance, Climate Resolve, Community Water Center, Environmental Justice Coalition for Water. I'd be happy to answer any questions or comments you may have.

Thank you for your consideration.

Best,
Heather

Heather Cooley
Water and Sustainability Program, Director
Pacific Institute
510-251-1600 x103



October 18, 2016

Chair Felicia Marcus and Board Members
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Sent via electronic mail to max.gomberg@waterboards.ca.gov, erik.ekdahl@waterboards.ca.gov, and eric.oppenheimer@waterboards.ca.gov

Mark Cowin, Director
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Sent via electronic mail to: diana.brooks@water.ca.gov, peter.brostrom@water.ca.gov,
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Cc: Kim Craig, Deputy Cabinet Secretary & Senior Advisor
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Karen Ross, Secretary
California Department of Food and Agriculture
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Catherine Sandoval, Commissioner
California Public Utilities Commission
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Andrew McAllister, Commissioner
Dave Ashuckian, Deputy Director, Efficiency Division
California Energy Commission
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Gordon Burns, Undersecretary
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RE: Water Use Standards and Targets

Dear Executive Order State Agencies:

We applaud the Governor's Office, State Water Resources Control Board (State Water Board) members and staff, and Department of Water Resources (DWR) for their efforts in "Making Water Conservation a California Way of Life." The Governor's May Executive Order (EO B-37-16) directs the State Water Board and DWR to develop new standards that "generate more statewide water conservation than existing requirements, and shall be based on strengthened standards" for (1) indoor residential per capita water use; (2) outdoor irrigation; (3) commercial, industrial and institutional water use; and (4) water loss through leaks. At the Urban Advisory Group meeting on September 19th and 20th in Los Angeles, CA, the state agencies put forth a framework for the development and implementation of those standards. Based on this proposed framework, we would like to make the following recommendations:

1. Apply water-use standards and targets to recycled water;
2. Update and extend water-use standards on a regular basis;
3. Require systemic categorization of commercial, industrial, and institutional subsectors by 2019 and establish benchmarks by 2021;
4. Require installation of meters on commercial, industrial, and institutional landscapes of 1,000 ft² or more by 2021; and
5. Require compliance with water-use standards and targets beginning in 2021.

Additional detail on each of these recommendations is provided below.

1. Apply Water Use Standards and Targets to Recycled Water

Various stakeholders have recommended that the water-use standards and targets only be applied to potable water, while others have recommended that even some forms of potable water be exempted from the standards. We respectfully disagree, and recommend that the water-use standards and targets be applied to all *uses* and *forms* of water. Some adjustment for non-potable recycled water is already captured in "special landscapes," which are assigned a water budget of 100% ET according to the Model Water Efficient Landscape Ordinance. Additional adjustments for recycled water or other water supplies are not appropriate or needed.

Providing exemptions for recycled water or other water supplies would effectively incentivize their development in preference to water conservation and efficiency measures. Yet, water conservation and efficiency are broadly recognized as the least expensive, fastest, and most environmentally-sound way to meet water needs.^{1,2} Moreover, they save energy, reduce greenhouse gas emissions, lessen water and wastewater treatment costs, and defer or eliminate the need for costly new water and wastewater infrastructure. Incentivizing more expensive water supplies effectively increases the cost of providing water service and exacerbates affordability concerns for low-income households, and could undercut the new water ethic the State has been working to foster.

¹ See California Water Plan Update 2013 at Table 1-3 Range of Strategy Unit Costs comparing resource management strategies. (http://www.waterplan.water.ca.gov/docs/cwpu2013/Final/Vol3_Ch01_Introduction.pdf).

² See Cooley and Phurisamban. 2016. The Cost of Alternative Water Supply and Efficiency Options in California. Pacific Institute: Oakland, CA. (http://pacinst.org/app/uploads/2016/10/PI_TheCostofAlternativeWaterSupplyEfficiencyOptionsinCA.pdf).

The energy sector provides directly relevant guidance regarding the balance between supply and demand management. In California, energy utilities have efficiency targets *and* a renewable portfolio standard. This approach maximizes the value of investments in renewables and opportunities to reduce greenhouse gas emissions. Likewise, efforts to manage water demand and water supplies should be separated to maximize the value of those investments. There are numerous incentives (financial and non-financial) to expand water supplies in California, including Proposition 1 and water reuse and stormwater capture goals. Water conservation and efficiency promote the efficient use of *all* water resources in California, including recycled water, and help to ensure that we maximize the *value* of these investments.

2. Update and Extend Water-Use Standards and Targets on a Regular Basis

We recommend that the state adopt a mechanism to evaluate and extend the water-use standards on a regular basis. After an initial set of studies are completed in 2018, we recommend that the state adopt standards for 2021 and 2025. In 2021, we recommend that the state (1) evaluate the 2025 standard to determine if an adjustment is needed (based on available data) and (2) adopt a 2030 standard. Likewise, in 2025, we recommend that the state evaluate the 2030 standard and establish a 2035 standard. This process of updating the standards would allow for an adaptive management approach based on new water-use data as well as the development of new technologies and practices likely to be developed over the coming years that could further reduce water use. Additionally, providing a rolling framework that extends standards by 10 years provides water suppliers with time to dedicate resources to meet these standards and to integrate them into their financial, programmatic, and operational planning processes.

3. Require Systemic Categorization of Commercial, Industrial, and Institutional Subsectors by 2019 and Establish Benchmarks by 2021

The proposed framework would establish a set of practices commercial, industrial, and institutional (CII) water use instead of quantitative water-use targets. We support this approach and urge the state to begin the systematic categorization, data collection, and benchmarking process immediately. Specifically, we recommend that the state work with water suppliers and other stakeholders to develop standardized CII subsector categories by 2019 and establish benchmarks for each subsector by 2021.

The framework proposes that CII categorization be done using the North America Industry Classification Scheme (NAICS). However, NAICS may not be the most appropriate categorization scheme. Office buildings, for example, exist across all NAICS categories and may be grouped with facilities with substantially different water-use characteristics, such as warehouse or manufacturing facilities. Furthermore, because these data will be used to develop benchmarks, the categorization scheme should be informed by the availability of other data, such as revenue or employment, that could be used to normalize water use. A 2015 report from the Water Research Foundation recommends disaggregating CII customers into 12-15 principal functional categories and 40 subcategories.³ A subsequent study by the Water Research Foundation on water-use metrics and class characterization is underway that could also inform the state's efforts,⁴ as would work by the CDP and the CEO Water Mandate and a recent article in

³ Kiefer, J.C., L.R. Krentz, and B. Dziegielewski. 2015. Water Use in the Commercial, Institutional, and Industrial Sectors. Denver, Colorado: Water Research Foundation. <http://www.waterrf.org/PublicReportLibrary/4375.pdf>

⁴ See Water Research Foundation project #4619: Developing Water Use Metrics and Class Characterization for Categories in the CII Sector. <http://www.waterrf.org/Pages/Projects.aspx?PID=4619>

the Journal of the American Water Works Association.⁵ We urge the state agencies to consider these and other alternative categorization schemes that take into account the water-use attributes for different businesses.

4. Require Installation of Meters on Commercial, Industrial, and Institutional Landscapes of 1,000 ft² or More by 2021

Water measurement is an essential tool for effective water management. We strongly support the requirement to install a meter, either a dedicated utility service meter or a private submeter, on all CII landscapes of 1,000 ft² or more by 2021. All landscapes on a meter should then be subject to the outdoor water standard. Because there will be additional costs to install these meters, we recommend that the state provide water suppliers with specific financial assistance to help offset and/or mitigate these costs.

5. Require Compliance with Water-Use Standards and Targets Beginning in 2021

We recommend that DWR and the State Board play specific but differing roles in implementation of the standards. Specifically, we recommend that DWR and the State Board work together to develop the initial standards and conduct research to support subsequent improvements in those standards. DWR should then provide technical and financial assistance to help utilities meet the standards, while the State Board should evaluate compliance on an ongoing basis and maintain enforcement authority.

In order to build on water savings achieved during the drought, we recommend that compliance with the standards begin in 2021. Given that these are annual targets, we recommend that compliance with the 2021 target be examined by the State Water Board in 2022, when 2021 data are available, and be based on the enforcement structure employed for the emergency regulations, including information orders, conservation orders, penalties, etc. Compliance data should be reported directly to the State Water Board so that they can continuously monitor progress in the implementation of the standards and targets.

Finally, we recommend that *compliance* in 2021 be based on meeting an overall, aggregate water-use target for indoor residential use, outdoor irrigation, and water losses. This approach provides flexibility by allowing the water supplier to meet the aggregate target with increased savings in one or more categories to compensate for reduced savings in another. While compliance should be based on meeting the overall target, we recommend that water suppliers be required to report on their performance for each element of the standard, i.e., indoor residential use, outdoor irrigation, and water losses. This would allow the state to better evaluate where progress is being made and what additional actions may be needed to help water suppliers achieve their targets.

Thank you for the opportunity to provide these recommendations.

Sincerely,



Water Program Director
Pacific Institute

⁵ Frost, D., D. Sversvold, E. Wilcut, and D.J. Keen. 2016. Seven Lessons Learned Studying Phoenix Commercial, Industrial, and Institutional Water Use. *Journal of the American Water Works Association*, 108 (3): 54-64.



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/s/

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