



Stanford University
Sustainability and Energy Management

Utilities Division
327 Bonair Siding, 2nd Floor
Stanford, CA 94305-7272

April 13, 2015

Jessica Bean
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

SENT VIA ELECTRONIC MAIL
Jessica.bean@waterboards.ca.gov

Subject: Comments on the Mandatory Conservation Proposed Regulatory Framework

Dear Ms. Bean,

Stanford University Utilities Services (Stanford Utilities) has been following the emergency drought regulations put forward by the State Water Resources Control Board (SWRCB) and this most recent draft framework in response to the Governor's April 1, 2015 Executive Order. Stanford Utilities provides domestic water to the University's academic campus as well as student housing and faculty and staff homes on campus. Stanford Utilities purchases domestic water from San Francisco Public Utilities Commission (SFPUC) and serves a daily average population of 29,635 (total service population). We have 1,494 service connections and use an average of 2.1 million gallons per day.

Stanford Utilities has reviewed the SWRCB's Proposed Regulatory Framework and respectfully requests consideration of the comments below to be addressed in the draft regulation language prior to adoption. In addition to the comments listed below, Stanford Utilities supports the recommendations sent by Bay Area Water Supply and Conservation Association (BAWSCA), of which Stanford University is a member agency.

Consistent with Ordering Provision 2 of the Governor's Executive Order, which states "restrictions should consider the relative per capita water usage of each water suppliers' service area," Stanford Utilities would like to reiterate from BAWSCA's letter that small water suppliers who can demonstrate residential consumption levels during the September 2014 baseline period, that would place them in a conservation target level lower than 25%, be allowed to file those records and be assigned to the appropriate tiered target level.

As presently proposed, small water providers would be required to achieve a uniform 25% water savings regardless of current per capita consumption levels while urban water suppliers are assigned varying conservation targets based on their recent residential per capita use. As noted above, the tiered conservation standards developed by the State Board recognize the relative burden that different water suppliers face when meeting the proposed reduction levels, especially those who have previously achieved permanent water use reductions.

In 2001, Stanford University (SU) developed the Water Conservation, Reuse and Recycling Master Plan to identify ways to keep potable water demand below the current San Francisco Public Utilities Commission (SFPUC) allocation of 3.033 million gallons per day (mgd). The success of Stanford's Water Conservation and Efficiency Program is demonstrated by decreased domestic water use from 2.7 million gallons per day (mgd) in 2001 to 2.1 mgd in June 2014, despite more than 2.5 million square feet of new campus facilities added. Following the guidance provided by the SWRCB for calculating urban residential per capita water use (using total population served), the September 2014 use in the Stanford University service area was calculated to be 30 residential gallons per capita per day (R-GPCD). These urban water supplier per capita calculations don't apply well to institutions. Given that a large amount of our service area population are daytime users that live off campus, we also calculated the per capita use based on the metered residential use (including single family, multi family, and student housing) divided by the estimated residential population, resulting in a value of 57 R-GPCD. As a reference, the total potable water production in the month of September 2014 was divided by the total service area population, resulting in a 75 GPCD value (which includes residential, commercial, institutional, and industrial uses). Within the tiers proposed for Urban Water Suppliers, Stanford University would fall within a cutback tier of 20% rather than the standard 25%. Stanford Utilities agrees with the proposed addition of a 15% tier as recommended by BAWSCA.

Stanford University's water efficiency program is actively targeting high water users in our residential, institutional, and industrial areas to achieve further water use reductions. The final SWRCB regulations will provide further backing for the important efforts of our group within Utilities Services. It will, however, be difficult to obtain a 25% reduction given the extensive reductions already achieved by the campus and its residents. While we will continue to ask users to reduce as much as possible, the potential of enforcement upon a system with such an active water efficiency program does not seem prudent. A few examples of water conservation projects reducing Stanford University's demand on potable water since 2001 are listed below; we are actively adding to this list, especially with the public awareness to the drought:

- The majority of on-campus irrigation has been converted to non-potable "Lake Water", which is sourced from local surface water and groundwater. Last year, demand on this non-potable source was cut by approximately 20%.
- The University replaced more than 13,000 academic and student housing bathroom fixtures with water-efficient alternatives, including low flow showerheads, sink aerators, high efficiency toilets and urinals. More than 95% of the academic and student housing inefficient toilets have been retrofitted.
- All once-through cooling for equipment has been replaced with re-circulating systems.
- The majority of campus grounds and landscaping are on weather-based irrigation controllers, and more conversions are on the way (including additions in the residential areas).
- Since May 2008, SU has provided over 340 rebates to Faculty/Staff (residential area) for installing high efficiency toilets or clothes washers and performed over 100 water wise site inspections.
- Several large campus lawn removal projects have also been completed since 2001.

We are looking forward to continuing the improvement of the emergency drought regulations as we work together with SWRCB and other stakeholder groups.

Feel free to contact me at (650) 723-9747 if you have questions or comments.

Sincerely,



Julia Nussbaum, PE
Senior Environmental Engineer
Utilities Division
Stanford University

cc: Tom Zigterman (electronic copy), Stanford Utilities Services