

ESTABLISHED 1850

CITY OF VACAVILLE

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April 10, 2015

Ms. Jessica Bean
State Water Resources Control Board
1001 I Street
P.O. Box 2815
Sacramento, CA 95812-2815

Dear Ms. Bean,

This letter is in response to the State's request for comments on the Mandatory Conservation Proposed Regulatory Framework document distributed on April 7, 2015. The City of Vacaville provides potable water service to residential, commercial, industrial, and institutional customers. The City's population includes approximately 88,000 citizens, and 8,000 inmates in California Medical Facility/California State Prison Solano, for a total population of 96,000 residents relying on the City for potable water. The City has the following comments and concerns on the Proposed Regulatory Framework document.

1. Placing conservation standards in excess of 20% on commercial and industrial customers will drive businesses away from California. Businesses located in urban centers where clean water is available for production are a critical component of the State's economy. Petroleum and chemical plants, breweries, and bio-tech firms rely on clean potable water to manufacture their products. Requiring a production-oriented business to cut production by 20% or more may be the deciding factor between a business staying open, or closing doors and laying off employees. Therefore, it is recommended that the conservation standards focus on residential water use alone based on gallons used per capita per day.
2. It is a well-known fact that the majority of urban water use is due to landscape irrigation. Wastewater agencies in California have long set up billing systems that identify winter-water use (typically the months of December through February) as the period for calculating the baseline level of residential water use. December 2014 was an above average rainfall month, so little landscape irrigation took place. Therefore, December 2014 usage would be a fair measure of the amount of water a household needs to meet its basic needs. However, January 2015 had virtually no precipitation, so there was significant landscape irrigation, and it would not be representative of basic household water use needs. September 2014, with its hot first and second weeks, and warm later weeks saw significant irrigation and, thus, is a poor representation of urban household water use. It is recommended that the State focus on conservation standards for water use above the basic water needs of households alone, which will target reductions in urban landscape irrigation. Strict limitations on the number of days per week landscape irrigation can occur is the most effective method of reducing urban water use. Cities would most likely prefer allowing lawns and ornamental landscaping to die, rather than seeing businesses close and losing jobs.

3. The conservation standard does not take into account variations in climate due to geographic location. For much of the year, temperatures in the Sacramento Valley are considerably higher than in coastal regions. During the summer, people will naturally drink more water to hydrate in the hot central valley than along the coasts. Therefore, it is recommended that the allowable gcpd water use standards take into account these climatic differences. The State standards for fluoridation of drinking water are a good model to consider because those standards take into account climatic differences in determining appropriate fluoridation levels due to the higher consumption and use of drinking water in areas of higher temperatures.
4. There are many irrigation districts throughout California that provide non-potable water to urban areas for landscape irrigation. These irrigation districts obtain their water from the same water sources as the drinking water providers. However, the water conservation standards do not apply to these irrigation districts. We recommend that this oversight be corrected and that the conservation standards apply to these districts.
5. The four-tiered conservation standards are severely flawed. If a conservation standard is to be adopted, it should be based on a sliding scale, not a tiered scale. In the tiered system, the City of Daly City, at 55.6 gcpd in September 2014 has a 10% standard. The Park Water Company, at 55.8 gcpd has a 20% standard. For only 0.2 gcpd, or 0.3% more water per day, Park Water Co. has double the conservation standard. The City of Madera, at 164.8 gcpd, has a 25% standard. Golden State Water Co. of Ojai, at 165.5 gcpd has a 35% standard. Hence, for a difference of 0.7 gcpd, or 0.4% more water use, Ojai has a 10% higher standard. These are examples of the serious inequities in the tiered system. We recommend that any conservation standard established be scaled in one percent increments.
6. Additionally, in some cases, the highest water users have three to four times the water use than agencies within the same tier. For example, the San Juan Water District, located in affluent Granite Bay, had a September 2014 water use of 383.7 gcpd. If this district reduced that number by 35%, to 249.1 gcpd, that water use would still far exceed the September 2014 water use of the previously mentioned Golden State Water Co. of Ojai, at 165.5 gcpd. Ojai would have to reduce water use to 107.6 gcpd to meet the 35% standard. This is hardly equitable. Therefore, a sliding scale is highly recommended, with some of the State's highest water users having a conservation standard of possibly up to 50%. They should not be rewarded with a higher allowable water use just because they were exorbitantly using water previously.

In summary, the City of Vacaville believes that the Proposed Regulatory Framework does not focus on the true root of the urban water use issue. The focus on urban water conservation should be on reducing landscape irrigation, and allowing communities to continue serving the basic water needs of residents and businesses. Granted, some adjustments to home water use, such as low flow appliances, taking shorter showers, etc. are warranted. But, restricting landscape irrigation to two or three days per week, we believe, will result in the Governor's water conservation goals being met. If a two to three day landscape watering limitation is imposed statewide on all water users, both for urban providers and private entities, such as golf courses, cemeteries, campuses, etc., we believe that the Governor's overall 25% water conservation goal can be achieved.

Following is a preliminary example of what we feel could be a reasonable set of guidelines to set up conservation standards. Please keep in mind that due to the limited timeframe to respond to

the Proposed Regulatory Framework, this is not comprehensive. More scientific research should be conducted to confirm assumptions and base the standard on accurate data.

Urban Water Residential Use.

- Determine baseline residential water use values for urban water users. Use December 2014 as a baseline month due to the above average precipitation and low irrigation use. For Vacaville, the baseline value from December 2014 would be 85 gcpd. Use this baseline value as the target for that agency for the three winter months, December through February.
- Multiply the baseline value by a percentage to determine an increased target for the shoulder months of fall (September through November), and spring (March through May), to allow for some higher water use due to higher temperatures. Central Valley agencies would have a higher multiplier than coastal agencies. For Vacaville, the shoulder month multiplier might be 1.5, setting the target for the shoulder months of 128 gcpd. A coastal agency might have a multiplier of 1.25 or 1.30.
- Multiply the baseline value by a percentage to determine an increased target for the summer months (June through August), to allow for even higher water use due to higher temperatures. Again, agencies in the central valley would have a higher multiplier than coastal agencies. For Vacaville, the summer month multiplier might be 2.0, setting the target for the shoulder months of 170 gcpd. A coastal agency might have a multiplier of 1.75 or 1.80.

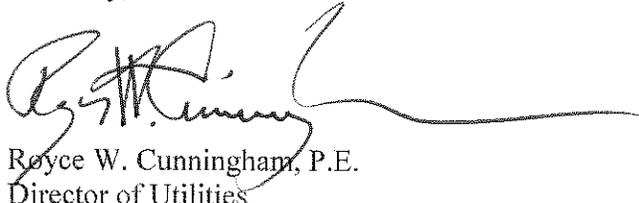
The following table shows how Vacaville’s water use by month would have changed using this method of setting up allowable monthly usage targets, if the targets were met.

| <u>Month</u> | <u>Actual 2013 Water Use (AF)</u> | <u>Actual 2014 Water Use (AF)</u> | <u>Target 2015 Water Use (AF)</u> |
|--------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Jan | 829 | 991 | 756 |
| Feb | 902 | 712 | 683 |
| Mar | 1240 | 908 | 1130 |
| Apr | 1458 | 1068 | 1100 |
| May | 1933 | 1617 | 1130 |
| Jun | 2105 | 1927 | 1470 |
| Jul | 2296 | 1998 | 1510 |
| Aug | 2200 | 1838 | 1510 |
| Sep | 1891 | 1596 | 1100 |
| Oct | 1620 | 1433 | 1130 |
| Nov | 1206 | 942 | 1100 |
| Dec | <u>970</u> | <u>761</u> | <u>756</u> |
| Totals | 18650 | 15793 | 13375 |

This table shows that, in 2015, Vacaville could have a 28% reduction in residential urban water use from 2013 utilizing this type of target daily water use system, adjusted for seasonal variations. Again, while this is not proposed as a comprehensive solution, it shows that there are alternative methodologies that should be considered. More time should be taken to evaluate winter water use data to develop reasonable baseline water use, and climactic variations should be considered to determine reasonable seasonal adjustment factors.

We would appreciate the opportunity to meet or speak with you regarding this subject. Please feel free to contact me at royce.cunningham@cityofvacaville.com or at (707) 469-6412 if you have any questions or require additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Royce W. Cunningham", with a long horizontal flourish extending to the right.

Royce W. Cunningham, P.E.
Director of Utilities