

# INDIAN WELLS VALLEY WATER DISTRICT

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November 24, 2015

Ms. Felicia Marcus, Chair  
State Water Resources Control Board  
1001 I Street, 24th floor  
Sacramento, CA 95814

Attn: Jeanine Townsend, Clerk to the Board

Subject: Urban Water Conservation Workshop Comments

Dear Ms. Marcus,

The emergency regulations enacted by the State Water Resources Control Board (SWRCB) that took effect June 1, 2015 have achieved and exceeded the desired result of reducing water use statewide by the 25% target established by Governor Brown when compared to the same period in 2013. The SWRCB and water agencies throughout the state are to be commended for the leadership that has resulted in accomplishing this goal. It is, however, important to recognize that the targets assigned to individual agencies are not sustainable in the long-term because the basis for those assigned targets does not take into consideration the many variables that factor into water consumption within the 400 plus water agencies across the state that report to the SWRCB. California is quite diverse with respect to population, land use, topography and climate; factors that have significant impact on local water use.

While considering ongoing, long-term conservation regulations, it is important to not lose sight of the fact that conservation alone is not the solution to balancing California's water supplies with demands. Storm water capture, additional surface storage, water banking, and desalination are among the components that would comprise a comprehensive integrated solution.

With respect to conservation as a component of the solution going forward, we have the opportunity now to develop a more balanced approach in setting targets by considering such factors as conservation results accomplished by local agencies prior to 2013 in response to the 20X2020 initiative put forth by the Department of Water Resources in February 2010. Local water agencies that took the challenge to heart and successfully implemented conservation measures to reduce consumption, in some cases, have not received consideration for their achievement when conservation targets were assigned earlier this year. By excluding achievements prior to this year, those who did not embrace the 20X2020 initiative early have not faced the same challenges that those who did act early to reach the goal. Indian Wells Valley Water District (IWVWD) is one of the Districts that took action prior to the current drought to decrease consumption. In addition to increased conservation outreach and educational programs, the Board of Directors passed two landscape ordinances in 2010

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implementing planting and irrigation restrictions for both commercial and residential customers. IWVWD has achieved a 20% reduction in water produced from 2007 to 2014. The 36% conservation target assigned to IWVWD by the SWRCB results in an effective 50% reduction since 2007; certainly a challenging target to achieve considering other factors.

Other factors that must be considered when establishing sustainable conservation targets for local agencies include normalization for climate, seasonal population variances, land use density, and public safety demands. In the case of IWVWD and other desert agencies, climate and land use density are factors that impact ability to achieve the assigned 36% conservation target. As previously stated in April 21, 2015 letter to the SWRCB, high temperatures and low humidity typical to our desert area make evaporative cooling the most energy efficient and thus the primary method for cooling residences and businesses. According to a study by the University of Arizona's Office of Arid Lands Studies, "the percentage of household water used by the coolers was 25.8% for households without air conditioning, and 15.8% for all houses." Very few residences in our service area have both evaporative cooling and air conditioning. This study also states, depending on size, air movement, and relative humidity, seasonal water use for evaporate coolers can range from 7,350 to 22,050 gallons per cooler, or 35 to 100 gallons per day assuming 212 days of use. Consideration for this use and evapotranspiration rates, which vary significantly within the state, must be factored into future discussions about sustainable conservation targets.

Seasonal population variances can also have a significant impact on water consumption and an agency's ability to meet its conservation goals. Communities that rely on tourism, such as Mammoth Lakes in our Eastern Sierra area or some of the coastal communities, can see highly variable occupancy rates from year to year so to base conservation rates on a single year that may be outside the norm could result in either a target that is unachievable or one that is not challenging enough.

In establishing conservation targets, consideration also needs to be given to the fact that water consumption typically declines during the fall and winter months when water use for outdoor irrigation and, in some areas, evaporative cooling significantly declines. To achieve an assigned conservation target, an agency must over-achieve during the summer months when usage is higher because the opportunity to achieve the same level of savings is diminished significantly when usage is primarily indoors. To illustrate my point, a water agency assigned a 36% conservation rate would not achieve its target if it decreased usage by 50% during the months of June through September, 30% in October (a transitional month), and 20% during the remaining four months when usage would be primarily indoors. The average reduction would amount to only 34% and the agency would not meet its target. Of course this is only one example, but it does illustrate the point that conservation results must significantly exceed expectations during the summer months in order to achieve the final goal. Monthly reductions on the order of 50% would certainly present a challenge for some water agencies to achieve and have the potential to result in damaging unintended consequences such as stressing mature trees and increased fire danger.

Land use density is another factor that can have a significant impact on water consumption. A rural area with large parcels where hobby gardens and small animals are often kept will have a much higher residential gallons per capita per day (R-gpcd) than a highly urbanized area where apartment complexes occupy entire neighborhoods. These areas will have a high concentration of residents with relatively little outdoor irrigation resulting in much lower R-gpcd than a rural area where single families occupy larger parcels.

While acknowledging the difficulty of considering all of these variables when establishing conservation targets for 400 plus local agencies going forward, it is nonetheless necessary to develop a method that factors local influences into determining reasonable and sustainable conservation goals. Again, conservation alone cannot be the solution to a reliable, sustainable water supply for California. It is but one component of a comprehensive plan and I encourage the SWRCB to work with other agencies including the Association of California Water Agencies (ACWA) to expedite development and secure funding for such a plan.

Respectfully,



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