
EQUINOX CENTER

HEALTHY ENVIRONMENT STRONG ECONOMY VIBRANT COMMUNITIES

“The Potential of Water Efficiency and Conservation: Opportunities in Single Family Homes in San Diego”

The fifth publication in its H₂Overview Project, *The Potential of Water Efficiency and Conservation*, is Equinox Center’s new study examining San Diego County’s opportunities to use water more efficiently. Water is likely to be the most critical resource challenge that the San Diego region will face during the coming two decades as our population and economy grow.

Report Findings

- In the single family residential sector alone, **overall we could use our water 20-30% more efficiently than current projections estimate**, primarily by employing technologies already in existence.
- **The most significant savings could come from reducing outdoor water usage.** On average, single family homes in San Diego that use water for landscaping use about 50 gallons/day more than needed.
- Equinox Center estimates that by eliminating over-irrigation alone, on average, households **could reduce outdoor water demand by up to 26 percent.**
- **Households could save double that** by employing the most efficient irrigation technologies, reducing irrigable area and replacing plants that require high water with low water plants or xeriscaping.
- In addition, **there are water efficiencies to be gained inside homes.** Data that Equinox Center analyzed show that **only about 3% of single family homes have installed, exclusively, the most efficient toilets** available, and only about **4% have installed the most efficient clothes washers.**
- Reducing water consumption in the region could have **multiple benefits** including **reducing or delaying the need for expensive new supply infrastructure, reducing the amount of runoff and pollutants** that threaten the water quality of our beaches and bays, and **saving consumers money on their water bills.**
- Despite the benefits, there are challenges to seeing more aggressive efficiency and conservation practices in the region, most notably the business model and pricing structures of most water utilities and the need for more “real time” feedback to consumers about their usage patterns.

Note: Our intent is for this report to be helpful to decision makers and the public by stimulating informed discussion and providing empirical evidence demonstrating that there is remaining conservation opportunity to be explored in the region. We do not intend for our estimates to be considered final projections for water use and efficiency projections.

Recommendations

Our policy recommendations and areas for research, along with [target audiences](#), include:

- 1) **Ensure that future demand estimates at the local and regional level include all new green building codes** that would require buildings to have more water efficient technologies installed. ([Target audiences: water retailers and SDCWA.](#))
- 2) **Prioritize implementing water pricing structures that incentivize conservation and discourage waste.** There is evidence that steeply tiered and budget based pricing structures do this and also help water utilities keep their revenue and rates more stable during times of drought. ([Target audiences: water retailers; non-profit organizations and SDCWA could play a role in facilitating.](#))
- 3) **Consider setting more aggressive conservation targets than those laid out in SBX7-7** and reach those targets by maintaining or expanding incentives and rebate programs and creating financing programs that encourage consumers to retrofit existing homes with the most efficient technologies available. ([Target audiences: water retailers.](#))
- 4) **Coordinate regional water consumer education campaigns** using the latest research that shows what messaging is most effective in influencing thoughtful water use behavior. Water agencies can also work with the private sector to develop public-private partnerships that can help move the needle on consumer demand. ([Target audiences: SDCWA, water retailers, regional non-profit organizations, academics, businesses.](#))
- 5) **Use and invest in billing and data collection systems** that can help water managers **better assist the residents** that are over watering or have significant leaks. ([Target audiences: water retailers.](#))
- 6) **Explore the possibility of working with other water utilities** throughout the state **to support research on whether/how the sale of water could be decoupled from water efficiency services as is done in the electric utility industry.** ([Target audiences: elected officials, water utility managers, SDCWA.](#))
- 7) **Engage with a wide range of stakeholders in the region**, including the private sector, those from the energy industry, land use planners and others **in a regional dialogue to weigh the options of what our future water portfolio should look like, and to jointly act to implement solutions.** ([Target audiences: elected officials, water utility managers, SDCWA, non-profit organizations, academics.](#))
- 8) **Conduct research better documenting the costs and benefits of conservation measures versus the costs of new infrastructure projects**, and exploring the issue of who pays for such measures and how. More research is also needed to understand how demand hardening would affect water management efforts in times of drought if more aggressive long term water conservation methods were put in place ([Target audiences: academics, non-profit organizations.](#))