

INTEGRATED APPROACH KEY TO LONG-TERM WATER SUSTAINABILITY

Background

As California continues to grapple with the effects of a multi-year drought, both the urban and agricultural sectors have stepped up to the plate by taking significant steps to save water. While these efforts have improved our prospects during the current emergency conditions, California water agencies have long been committed to implementing best practices in water conservation and water use efficiency, a fact that has put California in a position to meet its water management goals in spite of the drought. While emergency response and incentivizing ongoing conservation require distinctly different actions, CMUA member agencies are fully committed to continue integrating efficiency and conservation into their short-term activities and long-term water supply planning.

Urban and Agricultural Water Suppliers Lead the Way

California's urban and agricultural water suppliers have led the way in water conservation and water use efficiency long before the current drought. California's urban water suppliers have been working diligently toward meeting or exceeding the requirements in SBX7 7 (2009), which directs agencies to save 20 percent of their water supplies by 2020. Billions of dollars have been invested in groundbreaking programs and activities to save water and increase the efficiency of delivery and distribution systems.

In the agricultural sector, water suppliers and farmers have worked together to both conserve water and ensure each drop of water is used as efficiently as possible. For example, from 2003 through 2013, \$3 billion was invested in upgraded irrigation systems (drip, micro sprinklers, high-efficiency pumps) on more than 2.4 million acres of farm land. These investments continue to occur throughout the state, improving water use efficiency and saving millions of gallons of water, all while crop production per acre-foot continues to increase. Farms now account for 40.8 percent of California's water demand according to the Department of Water Resources' California Water Plan (Bulletin 160-13), an amount that has actually decreased from 43.2 percent just ten years ago.

Emergency Water Regulation Issued in Response to Drought

Alarmingly low rain fall totals and snow pack levels in the past few years have rightfully created a sense of urgency amongst state leaders who are worried about the ability to provide water for its citizens. This concern culminated in Governor Brown issuing an Executive Order on April 1, 2015 that directed the State Water Resources Control Board to "impose restrictions to achieve a statewide 25% reduction in potable urban water usage through February 28, 2016." The State Board subsequently adopted an emergency regulation in May 2015 that requires each water supplier to conserve a specific percentage of water based on their July-September 2014 residential gallons per capita per person per day. As of November water suppliers reported saving more than 1 million acrefeet of water, over 80 percent of the 1.2 million acre-feet savings goal to be achieved by the end of February 2016. The State Board is expected to adopt an extension of the emergency regulation at their February 2 Board meeting.

Unintended Consequences of the Drought Emergency Affect All Californians

Everyone agrees the state needs to conserve water and improve water use efficiency; however the current emergency regulation on urban water conservation is a placing a disproportionate burden on the state's water agencies, thereby undermining their operational stability and affecting the surrounding community. As an example, CMUA partnered with the Association of California Water Agencies on a survey in which water suppliers were asked about the financial impacts of the emergency regulation. The results, though not scientific, paint a rather sobering picture of how water suppliers are suffering under the regulation. The 85 respondents indicated more than \$600 million of additional costs and lost revenue over just the 270-day period (June 2015-Feb 2016) of the emergency regulation. These impacts include revenue stability and affordability issues, demand hardening (i.e., reduced buffer for managing demand during exceptionally dry years), and effects on local and regional economies.

In agriculture, California's farmers and irrigation districts, like the urban sector, have faced curtailments and other severe cutbacks in water deliveries. In 2014 alone, farmers fallowed 428,000 acres of land, suffered \$2 billion in direct farm losses and local economies lost 17,100 jobs.

The Solution: Integrated Water Management is Essential

Urban and agricultural water suppliers will continue to "make conservation a way of life" with or without drought. However, to support a truly sustainable system it also is critical to "increase regional self-reliance and integrated water management across all levels of government." This concept is outlined in the California Water Action Plan and centers on ensuring water security at the local level. A secure and reliable water supply includes conservation, increased storage and conjunctive use projects and the development of new supplies such as recycled water, storm water capture, and desalination. Future emergency regulations and any long-term conservation framework must recognize both the demand management and supply reliability needs of the state to ensure the preservation of an equitable and integrated water management approach for the future of California's water supply.

**Agricultural water use statistics courtesy of California Farm Water Coalition