



NEW STUDY PREDICTS WATER RELIABILITY

OC AGENCIES ANALYZE FUTURE NEEDS AND COSTS / BENEFITS OF WATER PROJECTS

BY CATHI DOUGLAS

Something seemingly as straightforward as clean water available at the turn of a tap isn't simple, cheap, or easy, according to water officials. An exhaustive new study details possible threats to Orange County's future water needs and details a multitude of ideas for meeting demands with dependable supplies.

The Orange County Reliability Study, initiated by the Municipal Water District of Orange County, evaluates existing and future water supplies, as well as system reliability and emergency supplies, explains Karl Seckel, MWDOC assistant general manager and district engineer. The study's intent is to provide information on the costs and benefits of various local, regional and statewide strategies that impact Orange County's future water supply.

With a 40 percent to 50 percent reliance on water from the State Water Project and the Colorado River Aqueduct, Orange County must face the possibility that these imported supplies may decline in the face of regulatory actions, drought and insufficient storage.

In collaboration with 30 local and regional water agencies, Seckel says MWDOC engineers will use the study for long-term planning. The study uses sophisticated information—including expert input on estimated water demands, estimated rainfall, sea-level rise and water supplies—to determine how Southern California's water supplies can be protected and allows engineers to account for different weather, infrastructure, population and climate scenarios.

"We are in at least a 10-year drought," Seckel notes. "A lot of things can happen and a lot can change as we're speaking, but it's certain that we need more careful, long-term planning to determine the risks we are facing in the long run."

Planners have many options for ensuring the reliability of water in Southern California, Seckel explains, including desalination of ocean water, recycling wastewater supplies and development of additional imported supplies and the California Water Fix—a proposal to construct two tunnels up to 150 feet below ground to protect water supplies and provide a new route to import Northern California water.

Perhaps the Orange County Reliability Study's most noteworthy finding, Seckel says, is that despite adding 750,000 residents since 1990, the county uses about the same amount of water as it did then. Even better, he says, the study demon-

strates that OC water use in 2040 will remain at similar levels even after adding another 300,000 residents, a demonstration of the efficiency of water use in the county achieved over the years.

Consumer programs made a difference, Seckel says, noting the effectiveness of the increased use of recycled water to provide irrigation-quality water to golf courses, parks and common areas. Seckel smiles as he explains the "Porcelain Canal," in which low-flow toilets replaced hundreds of thousands of inefficient units throughout Orange County.

"Other decisions were made beginning in the '90s that required huge investments but are the reason we haven't run out of water yet," Seckel adds. Dramatic reductions in indoor water use came about thanks to consumer programs such as the Porcelain Canal and the introduction of energy- and water-efficient washing machines. Now efforts are concentrating on the reduction of outdoor water use through efficient irrigation, automated sprinkler systems that determine use based on weather conditions, water-saving sprinklers and nozzles, and California-friendly landscaping.

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The investments also increased the efficiency in transporting, storing, treating and delivering water—as well as the significant investment by the Metropolitan Water District in Diamond Valley Lake near Hemet, which more than doubled reservoir storage in Southern California when it opened in 2000. Like a savings account, the reservoir is filled when water is available from the State Water Project, then used in drier times. The \$2 billion project was built without state or federal funding. Metropolitan also invested heavily in Central Valley water storage and programs to increase water deliveries through the Colorado River Aqueduct.

Metropolitan's combined storage has reached as high as 2.7 million acre feet—enough for more than 6.5 million families—but the "savings account" has dropped to less than 1 million acre feet during the prolonged drought.

Seckel says every conservation effort and every project makes a difference.

"What we do affects each other, so planning must be collaborative to ensure an integrated resource plan that reduces risk," he says. "The study tells us what we should start thinking about today."

Welcome to **Orange County's Water Wise Lifestyle**, an ongoing series to help you navigate the new normal of California's water resources. Various water districts will be offering important information and tips along with rebates and cost-saving incentives for homeowners and businesses.

CALENDAR OF EVENTS

OC GARDEN FRIENDLY EVENTS:

Free events where you can learn about drought-tolerant landscape, efficient irrigation and how to save water and eliminate runoff.

MARCH 5: 8 A.M. - 12 P.M.
Home Depot - Santa Ana
3500 MacArthur Blvd.

MARCH 5: 8 A.M. - 12 P.M.
Home Depot - Lake Forest
20021 Lake Forest Dr.

MARCH 12: 8 A.M. - 12 P.M.
Home Depot - Mission Viejo
27952 Hillcrest

MARCH 19: 8 A.M. - 12 P.M.
Home Depot - Anaheim Hills
1095 N. Pullman St., Savi Ranch Ctr.

MARCH 19: 8 A.M. - 12 P.M.
Home Depot - Irvine
6200 Irvine Blvd.

MARCH 19: 9 A.M. - 1:00 P.M.
Tree of Life - San Juan Capistrano
33201 Ortega Hwy.

APRIL 2: 8 A.M. - 12 P.M.
Home Depot - Huntington Beach
7100 Warner Ave.

APRIL 30: 8 A.M. - 12 P.M.
Home Depot - Costa Mesa
2300 S. Harbor Blvd.

H2O FOR HOAS

Aimed at providing homeowners associations with information on **WATER-EFFICIENT IRRIGATION TECHNIQUES** to save water and eliminate runoff.

MARCH 9: 8 A.M. - 12 P.M.
Santiago Canyon College
8045 E Chapman Ave., Orange

MARCH 17: 9 A.M. - 12:30 P.M.
The Bell Tower
22232 El Paseo
Rancho Santa Margarita



Learn More about the Water Wise Lifestyle at the OC Register's Knowledge Café:
ocregister.com/sections/knowledge-café

WATER PARTNER PROFILE: CITY OF LA HABRA



The city of La Habra – perhaps best known to outsiders for its annual Corn Festival, which attracts 30,000 visitors – provides water service to 63,118 households. Water service in La Habra is unique, says Water & Sewer Manager Brian Jones, because the city has its own groundwater basin that provides about 40 percent of the city's water.

"La Habra is what I call bathtub-shaped, high on the north and south ends with hills on either side," Jones explains. "It can make water delivery challenging."

While providing water service to residents and businesses since 1925, Jones says his department does quite a bit of water forecasting in anticipation of

upcoming weather and based on past performance and demand.

"Typically we evaluate our system on a daily basis, multiple times a day, to make adjustments and corrections to provide the adequate amount of water," Jones says. The city has 21 different water pressure zones and three different sources of water, including its groundwater basin, access to imported water from the San Gabriel River water basin and from the Metropolitan Water District.

The city is involved in public outreach regarding water restrictions in the ongoing drought, Jones says, and has reduced use 22 to 23 percent since the June 2015 inception of the program. For more information, see ci.la-habra.ca.us

Orange County's Water Wise Lifestyle page is brought to you weekly by the family of OC water providers, including the cities of Brea, Buena Park, Fountain Valley, Garden Grove, Huntington Beach, La Habra, Newport Beach, Orange, San Clemente, Seal Beach and Tustin, and the East Orange County, El Toro, Irvine Ranch, Santa Margarita, Serrano, South Coast, Trabuco Canyon and Yorba Linda water districts. The Municipal Water District of OC and the OC Stormwater Program are also participating.