

**BAY AREA WATER SUPPLY AND CONSERVATION AGENCY
BOARD OF DIRECTORS MEETING**

November 14, 2014

Correspondence and media coverage of interest between October 6, 2014 and November 14, 2014

Correspondence

Date: October 16, 2014
From: Nicole Sandkulla, BAWSCA CEO/General Manager
Material: Statement by Nicole Sandkulla at a Confirmation Hearing for Anson Moran to be a Member of the San Francisco Public Utilities Commission

Date: October 15, 2014
From: Nicole Sandkulla, BAWSCA CEO/General Manager
Re: Statement by Nicole Sandkulla at SFPUC's Bay Tunnel Press Event

Media Coverage

Conservation:

Date: November 11, 2014
Source: LA Times
Article: Water conservation efforts pay off: US usage lowest in decades

Date: November 10, 2014
Source: www.allgov.com
Article: US water use drops to lowest level in more than 40 years

Date: November 4, 2014
Source: Associated Press
Article: California water use data shows big cities use less

Date: October 29, 2014
Source: San Jose Mercury News
Article: Save water – there's an app for that

Drought:

Date: November 13, 2014
Source: ACWA Water News
Article: Gov. Jerry Brown says drought will test "political capacity to collaborate"

Date: November 11, 2014
Source: National Journal
Article: Drought is taking California back to the wild, wild west

Date: November 10, 2014
Source: Capital Public Radio
Article: Water levels in California's reservoirs continue to drop

Date: November 8, 2014
Source: San Bernardino Sun
Article: Drought threatens Southern California gardeners' survival

Date: November 6, 2014
Source: KTVU
Article: EBMUD considers rate-hike to prepare for another dry year

Date: November 4, 2014
Source: KPCC
Article: California drought: Conservation plateaus, as water agencies offer more data to measure use

Water Supply:

Date: November 14, 2014
Source: Alameda Creek Alliance
Article: UC Study Calls Out Alameda Creek Dams as High Priority Dams In Need of Downstream Flows for Native Fish

Date: November 14, 2014
Source: Marysville Democrat
Article: Yuba River flows may drop

Date: November 14, 2014
Source: Stockton Record
Article: Well owners face decision: Release sensitive details if they want drought assistance

Date: November 13, 2014
Source: ACWA Water News
Article: State Water Resources Control Board Lifts Curtailments for Pre-1954 Water Rights Holders

Date: November 11, 2014
Source: San Ramon Patch
Article: 4 million grant awarded to expand San Ramon Valley Recycled Water Program

Date: November 10, 2014
Source: SF Chronicle
Article: Jerry Brown looks to solidify legacy with big state projects

Date: November 6, 2014
Source: KCRA
Article: Who owns California's water? Thousands own the rights, making for a tricky situation

Date: October 16, 2014
Source: Almanac
Article: First water from new Bay Tunnel reaches Crystal Springs

Date: October 15, 2014
Source: Water Online
Article: Bay Tunnel, the first tunnel under San Francisco Bay, begins delivering Hetch Hetchy drinking water

Proposition 1

Date: November 11, 2014
Source: LA Times
Article: California overwhelmingly voted for a water bond. What happens now? Lester Snow is the answer man on the water bond

Date: November 11, 2014
Source: Western Farm Press
Article: Best use of water bond money now at forefront

Date: November 5, 2014
Source: The Huff Post, By Peter Gleick, Kristina Donnelly, Heather Cooley
Article: The California Water Bond is a Beginning, Not an End: Here's What's Next



Statement by Nicole Sandkulla, Chief Executive Officer of the Bay Area Water Supply and Conservation Agency (BAWSCA), at a Confirmation Hearing for Anson Moran to be a Member of the San Francisco Public Utilities Commission

October 16, 2014

My name is Nicole Sandkulla and as Chief Executive Officer of the Bay Area Water Supply and Conservation Agency (BAWSCA), I enthusiastically support reconfirmation of Andy Moran as a member of the San Francisco Public Utilities Commission.

BAWSCA represents the 26 water suppliers in Alameda, San Mateo, and Santa Clara counties that purchase two-thirds of the water from the San Francisco Regional Water System. In turn, these agencies deliver this water to 1.7 million people, over 30,000 businesses, and countless community organizations in the three counties, who pay two-thirds of the System's costs.

I have worked with Andy Moran for more than fourteen years during my time at BAWSCA and its predecessor organization, on items critical to both our agencies, most recently, for example, as BAWSCA and its member agencies have actively supported the SFPUC's \$4.7 billion Water System Improvement Program. This and other experiences are the basis of my strong support for his reconfirmation.

Specifically for this critical responsibility, Andy Moran has:

- A sharp mind with deep understanding of the issues;
- Intellectual honesty and integrity;
- First-hand knowledge of the System; and
- Leadership experience at the management and policy-levels.

Andy and I share the goal of ensuring a reliable supply of high quality water, in an environmentally responsible manner, and at a fair price for all customers. He has worked diligently and wisely to achieve this goal that is fundamental for the continued protection of public health and safety and individual economic well being in San Francisco and our neighboring communities.

Andy's loyalty to the City and County of San Francisco, his commitment to the mission of the San Francisco Public Utilities Commission, and his personal integrity make him an excellent choice for the Commission again, and on behalf of BAWSCA, I urge that he be reconfirmed.

#####

(This page intentionally left blank.)



**Statement by Nicole Sandkulla, CEO/General Manager
Bay Area Water Supply & Conservation Agency (BAWSCA)
at SFPUC's Bay Tunnel Press Event
October 15, 2014**

The Bay Area Water Supply and Conservation Agency is very pleased and relieved to be part of this celebration for the arrival of Hetch Hetchy water through the new Bay Tunnel for our constituents.

The 1.7 million residents, over 30,000 businesses, and numerous community agencies in Alameda, San Mateo and Santa Clara counties who depend on this Hetch Hetchy Water System, and whose water interests our Agency represents, can feel much more confident that they will continue to have a reliable supply of high-quality water at a fair price.

Their water-supply risk from the two old, decaying pipes lying on the Bay floor for roughly the last 80 years has been eliminated with the construction of this first ever tunnel under the Bay. The team has done an impressive job of meeting and overcoming tremendous challenges on this large project, which is now estimated to be completed \$25 million under budget.

But other major projects in San Francisco's Water System Improvement Program must be completed over the next several years to restore full confidence in the Hetch Hetchy Water System. This includes the huge new Calaveras Dam.

BAWSCA has worked closely with the SFPUC on the development and implementation of the Water System Improvement Program. The \$4.7 billion program is 100% locally funded because water users recognized the importance of these critical water system improvements. The entire Hetch Hetchy Water System and the 2.6 million customers are safer today because this new Bay Tunnel is in operation.

#####

(This page intentionally left blank.)

Water conservation efforts pay off: U.S. usage lowest in decades

LA Times | November 11, 2014

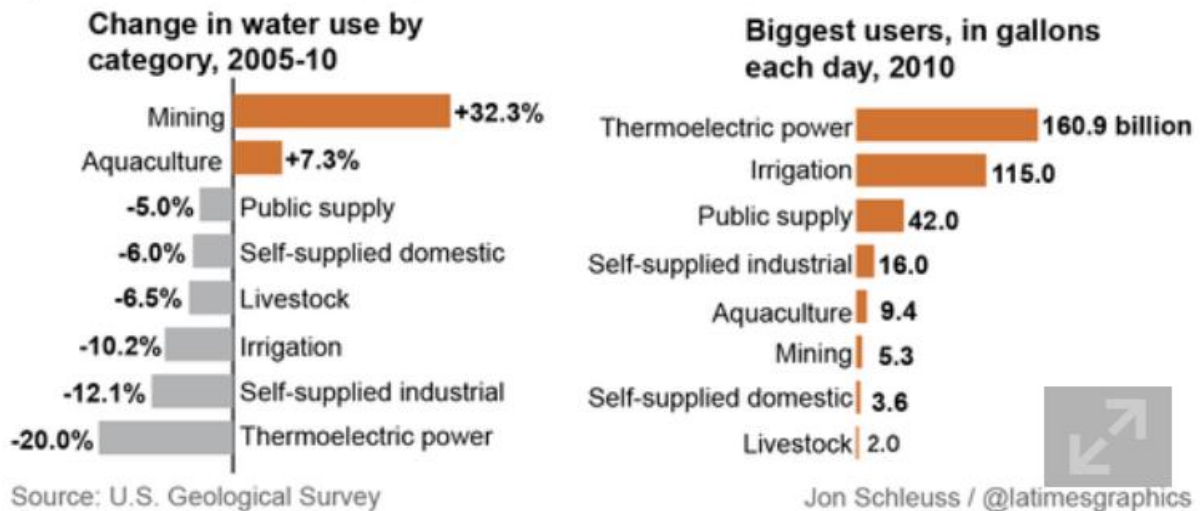
Americans recently passed a milestone when federal officials reported that water use across the nation had reached its lowest level in more than 45 years: good news for the environment, great news in times of drought and a major victory for conservation.

What was surprising in the U.S. Geological Survey report released last week was how little of the 13% decline in national water usage was due to the public cutting back.

Not as thirsty

Not as thirsty

Power generation and irrigation are responsible for more than half of the country's water use. But those groups used less water in 2010 than in 2005.



In drought-stricken areas, such as California and other states across the West, consumers are used to frequent warnings about the need to save water. Dry public fountains, limits on lawn watering and official requests for shorter showers have all been aimed at reducing water use at a time when reservoirs are shrinking and streams are running dry.

But it turns out that the public reduced water use by only about 5% from 2005 to 2010, the most recent period measured by the USGS.

The overwhelming savings came from big-scale industrial uses, government investigators found.

Molly Maupin, USGS hydrologist and lead author of the latest water survey, said about 75% of the decline in overall water usage is attributable to changes in electricity generation, and an additional 20% is due to new efficiencies in irrigation.

"Irrigation withdrawals in the United States continued to decline since 2005, and more croplands were reported as using higher-efficiency irrigation systems in 2010," Maupin said. "Shifts toward more sprinkler and micro-irrigation systems nationally and declining withdrawals in the West have contributed to a drop in the national average."

Still, the 5% reduction in public water use is important because it happened even as the population increased by about 4% and the number of people who had access to public water grew.

Per capita use declined to 89 gallons per day in 2010 from 100 gallons in 2005.

"Public supply's decline was significant because it was the first time we have seen that," said Maupin, who cautioned that it is difficult to pinpoint the exact reasons for the decrease. "We are reluctant to say cause and effect because there are so many variables. Surely there is some level of conservation," she said of efforts to curb personal use. "We don't know how much."

In any case, industrial water use is key to understanding the overall decline.

In some cases, manufacturers have adopted techniques such as recycling of water to help lower costs. The 2007-09 recession brought downturns in production, and subsequent reductions in the amount of water needed to cool machines.

A crucial factor, the USGS found, was an increase in the number of power plants built or converted since the 1970s that use more efficient cooling-system technologies. Surveyors based their consumption estimates on flows in and out of 1,290 power plants.

Overall in the U.S., about 355 billion gallons of groundwater and surface water were used per day in 2010, compared with 410 billion a day in 2005.

Twelve states accounted for more than 50% of total water withdrawals. The largest was California, followed by Texas, Idaho, Florida, Illinois, North Carolina, Arkansas, Colorado, Michigan, New York, Alabama and Ohio.

California accounted for 11% of the total withdrawals. Still, the state, the nation's top agricultural producer in terms of cash receipts, was able to sharply cut water use.

Californians in 2010 used an estimated 38 billion gallons of water a day, compared with 46 billion a day in 2005. The reduced use of surface water accounted for the savings; groundwater withdrawals were actually up because of the drought, which forced farmers to increase their reliance on irrigation.

Still, the overall savings was enough to give a big bump to the nation's conservation picture.

"What happens in California has an impact on the national trends," Maupin said.

#

(This page intentionally left blank.)

U.S. Water Use Drops to Lowest Level in more than 40 Years

All Gov | November 10, 2014

Water use in the United States has fallen 13% since 2005 and is at its lowest level since before 1970, according to a report (pdf) from the U.S. Geological Survey.

Americans use 355 billion gallons of water each day. As large as that number is, it has fallen from 410 billion gallons a day because of numerous conservation measures taken and a drop in the amount used for thermoelectric power—turning water into steam to drive a turbine. Thermoelectric is the biggest use of water nationally, accounting for 20% of the water used.

California, as might be expected, uses more water than any other state at 38 billion gallons a day—11% of the nationwide total—with 28.5 billion gallons of that going toward irrigation. (California also accounts for 12% of the nation’s population.) That total is down from 46 billion gallons a day in 2005. Texas is next at 24.8 billion gallons a day, or 7% of the U.S. total.

The decline in use was greatest in thermoelectric use, where it fell by 20%. Getting the credit for that is power plant closures, less use of coal-fired plants and more efficient cooling technologies. Next was irrigation use with a 9% drop and public supply, which fell by 5%. The decline in public supply usage was a first and came despite a 4% population increase.

“Reaching this 45-year low shows the positive trends in conservation that stem from improvements in water-use technologies and management,” Mike Connor, deputy secretary of the Interior, said in a statement. “Even as the U.S. population continues to grow, people are learning to be more water conscious and do their part to help sustain the limited freshwater resources in the country.”

Twelve states—California, Texas, Idaho, Florida, Illinois, North Carolina, Arkansas, Colorado, Michigan, New York, Alabama and Ohio—accounted for 50% of the nation’s water usage.

###

(This page intentionally left blank.)

California water use data shows big cities use less

Associated Press November 4, 2014 By Fenit Nirappil

SACRAMENTO, Calif. — Residents in coastal communities use far less water than their inland counterparts, but still find ways to conserve even more, residential per-capita water use figures released for the first time Tuesday show.

The State Water Resources Control Board is collecting per-capita data to better target conservation efforts as farms go fallow and reservoirs dry up. Gov. Edmund "Jerry" Brown called on Californians to reduce water use by 20% when he declared a drought emergency in January.

On the election ballot Tuesday is a Brown-backed measure that would authorize the state to sell \$7.1 billion in general obligation bonds for state water-supply infrastructure projects.

Californians are being asked to let their lawns go brown and take shorter showers as the likelihood of drought conditions worsening rises. The data released Tuesday shows big disparities in water habits.

Regional water use differences range from 84 gallons per-person, per-day in the San Francisco Bay Area to 252 in the Colorado River basin, which includes San Bernardino and Riverside. The figures exclude industrial, agricultural and business water users.

Median per-capita water use is 131, according to estimates from 351 suppliers serving roughly 33 million Californians. Residents in California's three largest cities, Los Angeles, San Diego and San Jose, are using between 79 and 92 gallons a day.

In densely-packed San Francisco where lawns are rare, residents use 46 gallons a day. In the wealthy 5,000-person community of Cowan Heights in Orange County, water use is more than 569 gallons a day.

"If you have a place with a really high per capita (water use) and use is flat, it raises the question of what's going on and is there more that's being done there," said Max Gomberg, senior environmental scientist with the water board.

Cowan Heights, for example, reported just a 2% drop in monthly water use in September compared to the year before.

Regions with the lowest per-capita water use, however, are reporting some of the biggest drops in monthly water use. The San Francisco Bay Area region decreased water use by 15% despite already having the lowest per-capita consumption in the state.

Cities and local water agencies are required to report the figures under emergency regulations approved by the water board in July. Those regulations also included mandatory outdoor water restrictions backed up with the threat of up to \$500 fines for violations.

Statewide monthly water use in September fell 10% compared to the same month in 2013, according to self-reporting by nearly 400 water agencies. But that's down from an 11.5% decline reported for August.

Water officials say residents need to conserve more.

"Some rain and cooler weather are welcome relief, but they don't mean the drought is over, not by a longshot," said Felicia Marcus, chairwoman of the state water board. "By far, conservation is still the most cost effective and common sense way to meet our water needs during this prolonged drought."

###

Save water -- there's an app for that
San Jose Mercury News | October 29, 2014

In a world filled with technology, keeping track of water use has never so easy and accessible.

The old fashioned way of measuring water consumption, waiting for the bi-monthly bill from North Coast County Water District, is now in the past. There's an app for that.

Dropcountr, a relatively new company based in Redwood City, offers customers and utility companies instant access to their household water usage.

Dropcountr CEO Robb Barnitt started his company in March 2013, before the governor declared a drought and asked everyone to save water. His motivation was simply to offer a way for ordinary people to conserve water by learning more about their household water consumption.

"When looking for information about one's water use, there were no clear answers. Most water companies don't do enough. This makes data available in a more intuitive way," Barnitt said. Dropcountr recently responded to a request for proposals from Bay Area Water Supply and Conservation Agency to make water conservation efforts available to all the agencies in the organization. Dropcountr earned that contract with BAWSCA to provide services through 2015.

So far, North Coast County Water District, Purissima Hills Water District and the city of Folsom have signed up to offer customers this way to monitor their water consumption. The app is free to users and available through Apple and Google play.

"While we are still working out the details of the Dropcountr pilot program, we're hoping that customers who download the app will be able monitor their usage closer and use water more efficiently," said NCCWD's Stephanie Dalton.

Also, the app lets customers know if they qualify for any rebates or incentives.

"The less water a customer uses, the better, especially in this time of drought. The NCCWD offers many water conservation incentives and programs to help our customers conserve water, including rebates, free water-saving devices, and tiered water rates that reward efficient water use. We're excited to add the Dropcountr app to our list, as we're always seeking new, creative ways to increase customer awareness of water conservation," Dalton said.

The pilot will be a year long and will include 1,000 accounts out of 8,000 in the total NCCWD service area. Residents will receive mobile apps and web access through the Dropcountr platform and NCCWD will be able to use Dropcountr's CLEAR to monitor daily water consumption, analyze data and help with new mandatory reporting requirements.

In some of the intended uses of Dropcountr, NCCWD can get on the phone to immediately alert residents about leaks before their bills skyrocket. Customers can opt to be notified before their rate tier jumps.

"It's easier for NCCWD to target their high users and target their outreach. There have been calls to save water, but it can be hard to do. We are trying to help. That's exciting for us," Barnitt said..

Before founding Dropcountr, Barnitt was working in the field of renewable energy.

"This issue is near and dear to my heart," he said.

Dropcounter has a small, but growing, staff in a business that has really taken off because of the drought.

"The number one response was, 'wow, I had no idea I used so much waster,'" Barnitt said.

#

Gov. Jerry Brown Says Drought will Test “Political Capacity to Collaborate”

ACWA Water News | November 13, 2014

Gov. Jerry Brown today said tackling the drought that is wracking California and much of the western United States will "test our imagination, our science and our political capacity to collaborate."

Speaking at the Western Governors' Association Drought Forum, a two-day event in Sacramento Nov. 13-14, Brown highlighted the need for creative thinking and continued conservation.

“People are trained to save money more than they are to save water,” Brown said in answer to a question on why his so-called “Rainy Day Fund” – Proposition 2 – garnered more votes than the water bond – Proposition 1 – on the ballot Nov. 4

Nevada Gov. Brian Sandoval opened the meeting with remarks that highlighted California's historic drought. He also noted that much of the West also faces drought. Sandoval said 97% of Nevada is experiencing some level of drought.

The drought forum in Sacramento is the third in a series of drought forums sponsored by the WGA. The two-day forum was titled – “Drought Impacts and Solutions in the Agricultural Sector.” The gathering is the third of four to be held this year as part of an initiative of Sandoval, WGA Chairman.

Sandoval launched the Drought Forum to foster a regional dialogue in which Western states and industry could share best practices on drought policy, preparedness and management, according to a WGA press release. Participants at Drought Forum workshops seek to identify ways to mitigate the impact of drought on communities, economies and the environment in a specific sector. Previous meetings have focused on energy, mining and manufacturing sectors.

The California meeting includes a session on current drought conditions in the West, as well as one on the drought's impact on the agricultural sector. The Sacramento forum also is designed to examine cross-agency collaborations among federal, state and other agencies.

Previous workshops were held in Norman, Okla., and Tempe, Ariz. The final meeting of 2014, “Drought Impacts & Solutions for Water Supply,” will be held Dec. 8-9 in Las Vegas.

The Western Governors' Drought Forum also offers an online resource library that includes a collection of best practices, case studies and news about drought. It can be found on the WGA website(westgov.org/drought-forum).

The Western Governor's Drought forum is conducted in partnership with NOAA's National Integrated Drought Information System. The meeting in Norman was sponsored by the Oklahoma Secretary of Energy and Environment and National Hydropower Association.

###

(This page intentionally left blank.)

Drought Is Taking California Back to the Wild, Wild West

National Journal | November 11, 2014

Mary Madden feels paranoid.

Last fall Madden noticed something suspicious. The water filling the tanks outside her veterinary clinic in Los Gatos, Calif., was disappearing at an alarming rate. Madden checked for leaks but found none. Then she realized: Someone was stealing her water.

"I just couldn't believe it," she said. "You never imagine anyone would do something like that but there it was, vanishing right before our eyes."

Madden decided to act. She installed security cameras. Then she put locks on the tanks. She even strung a chain across her driveway to keep out unwanted visitors. The theft stopped after the locks went on. But Madden never caught the thief, and she can't stop thinking about who did it.

"This is a really small community, so you sit here and start going through everyone you know and wondering if it was them," she said.

Madden is not alone. Water theft has become increasingly common in California as the state suffers through its worst drought on record. There's no reliable tracking of just how much water has gone missing. But reports of theft rose dramatically in the past year. Officials say a black market set up to peddle water is thriving as wells run dry. And law enforcement is scrambling to respond.

Mendocino County has made catching water thieves a top priority. The sheriff's office set up a water-theft hotline and investigates every tip. It also puts out patrols to sniff out suspicious activity.

In August, a sheriff's deputy there followed a trail of water droplets up a dirt road where he discovered a truck outfitted with a water tank. A confession came quickly. The driver had siphoned water from a nearby canal and planned to sell it to the highest bidder.

The Public Works Department in Lemoore, in Kings County, hired someone to scan city streets for thieves after officials found evidence that someone has been stealing water from fire hydrants.

For now, a statewide effort to curb water theft has yet to materialize. So cities and counties have been left to devise their own methods of retribution.

Officials complain that the penalty for getting caught may not be sufficiently strict: Mendocino County counts water theft as a misdemeanor. County Supervisor Carre Brown considers that a slap on the wrist. "To me this is like looting during a disaster. It should be a felony," Brown said.

Contra Costa County fines anyone caught stealing water \$25. Amid worsening theft, the county may soon increase the penalty to \$250 and up the amount to \$500 for repeat offenders.

But even with all the attention from law enforcement, officials say that much of the theft has gone unpunished.

"This is something that's very hard to pin down. If you don't catch someone in the act, how do you prove they did it?" Mendocino County Sheriff Tom Allman said.

As a result, some California residents have taken matters into their own hands. Online forums and community message boards serve as informal channels where people can post a warning. Word-of-mouth has also proven effective at spreading information.

After Madden told people what had happened, neighbors started to keep an eye on her property. "People will tell me if they see a truck lingering nearby when I'm not there," she said. "We all look out for each other."

Rural communities where residents rely on well water and areas of the state that play host to agricultural operations and illegal marijuana cultivation have been particularly hard hit.

Thousands of gallons of water were stolen from a fire station in North San Juan, a town nestled in the foothills of the Sierra Nevada Mountains, at the height of wildfire season this summer. The theft was discovered after an engineer hit the station's water tank and heard a hollow ringing sound rather than the usual thud.

"We were just absolutely stunned," said Boyd Johnson, a battalion chief with the North San Juan fire department. "Fires are on everyone's mind during the summer so to see this happen, I think it really scared people."

Residents of North San Juan depend on wells for water. The area is also known for growing marijuana and located just a few hours north of California's Central Valley, an area of the state where farmers rely on massive amounts of water to ensure the success of their crops.

This past summer thieves also made off with water from an elementary school and a public health clinic on the San Juan Ridge.

James Berardi, the principal of the school that was hit, says security cameras have been installed in an effort to catch thieves. The fire department is also taking precautions. After the theft, lockboxes with a combination padlock were put on each of the station's water tanks.

"It slows us down a bit getting to the water, but at least we know it's safe," Johnson said.

A growing number of wells have run dry on the ridge as the drought drags on. And that, according to Caleb Dardick, a resident of nearby Nevada City, means the theft is unlikely to end anytime soon.

"People are becoming desperate," Dardick said. "The situation has become really severe in the last few years."

All this has made water a chief concern for residents of the state who say they never used to give water a second thought.

"I think about water constantly, obsessively," Madden said. "I wake up every day dreading what might happen if we run out."

#

(This page intentionally left blank.)

Water Levels In California's Reservoirs Continue To Drop

Capital Public Radio |November 10, 2014 | Sacramento, CA

Statewide all reservoirs – more than 150 of them – hold about 57-percent of the water they normally do. The amount is measured in acre-feet.

One acre foot is enough to supply a typical residential household for a year. Right now reservoirs hold about 12 million acre feet.

Maury Roos is the Chief Hydrologist with the Department of Water Resources. He says it's not as severe as the drought of 1976, but it's not good either.

"It's probably comparable with what it was at the end of 1992, the end of the 1992 water year, which was a six year period of drought," says Roos.

But Roos says the picture is grim for the state's major reservoirs. Lake Oroville Reservoir, for example, is near the lowest level it's ever been.

"It's not a whole lot above the minimum of record. It's 924,000 acre feet. The minimum we had was 882,000 near the fall of 1977. That was a severe two-year drought, the worst two dry years we've had in a row," says Roos.

The state's major reservoirs now hold only about 43-percent of the historic average.

###

(This page intentionally left blank.)

Drought threatens Southern California gardeners' survival

San Bernardino Sun | November 8, 2014 |

Salvador Munoz has dripped 35 years of sweat onto West Los Angeles lawns, rising with the searing California sun to haul heavy leaf-blowers and push bulky lawnmowers 12 hours a day until dark.

“I’m old, but I can’t survive without working,” said 72-year-old Munoz, whose skin had no wrinkles when he started as a gardener decades ago. The profession was easier then, and worth it.

But it’s likely to get more difficult, experts say. The industry of professional gardening is evolving, demanding new skills of workers for water conservation. Gardeners who choose not to adapt, or don’t know how, will be left behind, experts say.

Gardeners are faced with statewide drought conditions this year and staggering statistics showing thousands of California homeowners converting lush green landscapes to drought-resistant yards that need less maintenance from gardeners. Workers say they don’t feel threatened or see their jobs evaporating like the state’s water supplies. They simply plan to do what is instinctual — adapt.

That malleability is what experts say will save the gardening industry over the next decade, and prevent it from slipping into extinction.

“It’s not giving up, and I think Latinos, that’s what we have. We try to do everything,” said Jaime Aleman, a veteran gardener originally from Zacatecas, Mexico, with about 30 years of experience and with clients across the San Fernando Valley. “That’s our culture. We’re hard workers and we try to do a lot of things.”

A malleable attitude is the only thing that’s going to keep residential and commercial gardeners from capsizing in the long run, said water efficiency expert Bill McDonnell of the Metropolitan Water District of Southern California. He points to statistics indicating that standard “mow, blow, and go” gardeners who don’t jump on the water conservation bandwagon to become stewards of water management will likely be left behind.

In a few short decades, McDonnell sees grassy Southern California landscapes as the rarity and drought-free desert and Mediterranean yards as customary, reshaping the entire Southern California panorama.

Recent Southern California statistics tend to back up McDonnell’s vision of the region’s future.

In August, about 2,500 Southern California residents sent in requests for rebates to remove 3.8 million square feet of turf from their front yards, a number that had languished in the thousands as recently as January.

But recent incentives, coupled with such dry conditions, has prompted a trend that has skyrocketed.

Golf courses, school districts, parks and homeowners associations are requesting rebates for plucking the green stuff and replacing it with desert or drought-resistant plants.

“It was like lighting a bottle rocket. It just took off,” McDonnell said of applications for turf removal rebates.

The shift has homeowners across Southern California letting go of the workers who for so long pruned, mowed and blowed lawns from Rialto to Torrance.

North Fontana retiree Bill Freeman sweeps his synthetic lawn with a broom about once a month. After 10 years, he let his gardener go, and now pays \$10 a month for someone to trim the few bushes that remain. Adding synthetic grass helps Freeman lean green. “We’re pretty green. We have extra insulation in the house. We both drive hybrids. Plus, it looks good when it’s clean,” he said.

A few streets away, John Marsh uses a blower to clear debris from his perfectly manicured, shiny synthetic lawn installed in July. The small front yard on Hacienda Way no longer requires a gardener, and irrigation takes care of the few live plants.

Aleman, the San Fernando Valley gardener, said he doesn’t plan to suffer the kind of fate Marsh’s landscaper faced, because he’s adapting to their needs. Although he has only one drought-resistant yard in North Hollywood, he is learning the skills necessary to keep him in business, maintaining and installing drought-resistant landscapes.

“We have to learn all that because we don’t want somebody else to come for our client,” Aleman said. “We did a job last year where I changed all the plants and planted succulents and gravel around.”

Gardeners on the other side of the equation, who aren’t adapting, are suffering, said Emilio Amaya, executive director of the San Bernardino Community Service Center, who provides legal services to the immigrant population.

“They’re losing clients,” Amaya said. “One of my clients does gardening during the week. Then he collects trash,” to accommodate the loss of income. Others sell items at swap meets or find jobs in other unregulated industries such as car washes or as dishwashers, trades already saturated in Southern California. If things become bad enough, that population will likely migrate to another state where water maintenance is not an issue, said Alvaro Huerta, assistant professor of urban and regional planning and ethnic and women’s studies Cal Poly Pomona.

Most gardeners say they realize the future of “mow, blow and go” gardening is not sustainable. But they’re not losing customers yet with any regularity, and expect the change will come gradually because Americans who lust for the lush green landscape won’t let go of it overnight.

Southern California won't transform into a succulent paradise or Mediterranean mecca overnight. Lush green yards dripping with non-native plants are part of the American dream, Huerta said.

"Angelenos are not going to buy into that type of aesthetic," he said. "The front lawn has been the symbol of the American dream Even if their kids don't use it or play on it... just like the automobile... For Americans to change their habits, it's going to take them awhile."

"It's going to take a while, but the gardeners will have to change," said McDonnell, Metropolitan's water efficiency expert. "I think the guy who sees his job as mow and blow is going to be out of a job in 20 years. But the guy who comes to your house and thinks, my job is to manage your landscaping and say, 'you need to put in gutters to conserve water and drip irrigation,' they'll stay in business."

###

(This page intentionally left blank.)

EBMUD considers rate-hike to prepare for another dry year

KTVU |November 6, 2014

OAKLAND, Calif. - It is impossible to know if California is heading into another drought year, but the EBMUD board is planning for that possibility.

"Based on our historic use patterns, we think there's a 36-percent chance that next year could be a shortage," said EBMUD Board President Andy Katz.

To address water supply concerns earlier this year, EBMUD purchased 5 million gallons of water drawn from pumps on the Sacramento River.

EBMUD says without significant rain in November and December, it will have buy more water this winter and the cost will be passed onto customers.

"To draw water from the Sacramento River requires a 14-percent rate increase," said Katz.

EBMUD is also considering special drought surcharges that would bump that 14-percent increase to 20 or 25-percent and an excessive use penalty of \$2 a unit for customers that use over 60 units a month or roughly 44,000 gallons per month.

The rates would be determined by stages relative to drought conditions and EBMUD's water supply.

Currently, EBMUD customers are exceeding conservation goals of 10% by saving 11.8 percent on water use.

The 14 percent rate hike has been approved and will take effect if water is taken from the Sacramento River. The additional rate increases and penalties remain proposals that potentially could be approved early next year.

###

(This page intentionally left blank.)

California drought: Conservation plateaus, as water agencies offer more data to measure use
KPCC/November 4, 2014

Californians cut water use more than 10 percent in September compared to the same month a year ago, according to new numbers released by state water officials. That's about half what the governor has asked for, and it's the first drop in conservation since the state began mandatory reporting for water use from every local agency.

For the first time the state released a calculation for how much each resident in each water district uses on a daily basis. It found a wide range in daily use - from 50 gallons a person a day up to 10 times that amount.

The monthly usage data, gathered by the State Water Resources Control Board, [reveal that conservation efforts leveled out somewhat after a summer of growing water savings](#). In Los Angeles, water use dropped just 7.5% compared to September of 2013. But state officials praised another south coast community, Oxnard, for a 14% reduction over already low water use. The Desert Water Agency in the Palm Springs area also won accolades for cutting consumption 11%.

Californians have anticipated the release of per capita per day numbers because they permit a direct comparison among residential water users, and because they're controversial. Agencies variously say that the calculation is inaccurate because of differing climatic patterns, temperature trends, and data-gathering capabilities around the state.

The state water board's Max Gomberg reported that the San Francisco Bay region averaged around 85 gallons per person per day, while the South Coast region, which includes San Diego, averaged 119 gallons per person per day for use. In LA the number was 92 gallons per person per day.

Regulators say their goal with these numbers is to keep the issue of how much water Californians save front and center.

###

(This page intentionally left blank.)

UC Study Calls Out Alameda Creek Dams as High Priority Dams In Need of Downstream Flows for Native Fish

Alameda Creek Alliance | November 14, 2014

A new U.C. Davis study, “[Assessing Flows for Fish Below Dams](#)”, highlights California dams that are likely depriving native fish downstream of the flows they need to stay alive. The U.C. Davis Center for Watershed Sciences has developed a new tool for identifying dams most need of attention to protect fish, particularly native species. The report highlights 181 “high-priority” California dams where flow modifications and/or other management actions may be warranted to ensure adequate flows for fish under California Fish and Game Code 5937.

The report identifies Calaveras Dam on Calaveras Creek, in the Alameda Creek watershed, as one of the California dams with the greatest alteration to seasonal monthly stream flow patterns downstream of the dam. Operation of the dam will change and flow releases for native fish downstream of this dam will begin once the San Francisco Public Utilities Commission finishes construction of the replacement Calaveras Dam, likely in 2018. The SFPUC will provide year-round water releases into Alameda Creek from Calaveras Reservoir ranging from 5 to 12 cubic feet per second, depending on the time of year and water-year type (wet, normal or dry).

The report also identifies the inflatable rubber dams on lower Alameda Creek as high-priority dams because they are associated with a watershed with a richness of native fish species. The Alameda County Water District permanently removed the lowermost rubber dam from the Alameda Creek flood control channel in 2009. The ACWD will be constructing fish ladders at the other two rubber dams from 2015-2017, and afterwards will be operating the dams with improved bypass flows for native fish.

###

(This page intentionally left blank.)

Yuba River flows may drop

Marysville Democrat | November 14, 2014 12:04 am

With storage in New Bullards Bar Reservoir dwindling, the Yuba County Water Agency wants to reduce releases into the Lower Yuba River.

The agency is requesting a flow deviation from its hydroproject license with the Federal Energy Regulatory Commission. The deviation would lower the minimum releases from 600 cubic feet per second to 550 cfs. from Dec. 1-Dec. 30 and Jan. 16-March 31.

"In essence, this whole thing is about conserving water for drought," said Curt Aikens, YCWA general manager.

But the flow requests are by no means unprecedented. The agency is seeking to lower the flows to the schedules outlined in the 2008 Yuba Accord. Those flow schedules were negotiated over two years with fishery biologists and upheld in a hearing by the State Water Resources Control Board.

The FERC flow schedules were developed when the agency received its license in 1966. Since then, the agency has spent considerable time studying the Yuba River, Aikens said.

"We view the accord schedules as more contemporary schedules based on more modern science," Aikens said.

The request was supported by the National Marine Fisheries Service and the California Department of Fish and Wildlife.

The National Fish and Wildlife Service, however, expressed concern reducing the flows from the current releases of 820 cfs to the proposed 550 cfs would strand salmon nests and dewater eggs.

The service said dewatering could suppress the population on the Yuba River and proposed a schedule that would gradually stagger the release reductions to minimize nest dewatering.

The proposal was not included in YCWA's request to FERC, and Aikens said he was not concerned about dewatering salmon nests.

"We've done some historical analysis of the information and come out to show virtually no impact to salmon nests," Aikens said.

The agency will request another flow deviation with a requirement to release a minimum of 1,000 cfs into the river from Jan. 1-Jan. 15. That request will be sent to FERC on Nov. 24, Aikens said.

###

(This page intentionally left blank.)

Well owners face decision: Release sensitive details if they want drought assistance

Stockton Record | Nov. 14, 2014 @ 12:01 am

Already missing out on state money to address the drought, San Joaquin County officials will soon ask property owners if they're willing to disclose to the state what some feel are sensitive details about their wells.

Earlier this fall, the state Department of Water Resources determined that the county was ineligible for millions of dollars in drought assistance because not enough information about local wells had been provided.

The county has monitored groundwater levels on its own for more than 40 years. But the county cannot comply with a new statewide groundwater program unless the county turns over certain construction details that are confidential under state law.

The county's multi-agency Groundwater Banking Authority agreed this week to send carefully worded consent forms to property owners, who can then decide if they're comfortable with the county releasing those details to the state.

If the situation isn't resolved, the county could be ineligible for future grants made available through the recently approved Proposition 1 water bond.

County officials want a shot at state money to help address local water problems, but they also don't want to upset landowners who have voluntarily allowed their wells to be monitored by the county since 1971.

It was not clear Thursday how many wells would be needed to satisfy the state, said Brandon Nakagawa, the county's water resources coordinator.

"There is no consensus on whether or not a (consent) form like this is doable, feasible or what kind of feedback we're going to get," Nakagawa said at a meeting one day earlier. "Folks may react harshly and not want to participate at all in our groundwater monitoring program. That's a scary proposition because we've been doing this since 1971 with a very good handshake agreement."

Historically, well information was kept confidential in California because well drillers did not want to reveal to each other details about groundwater conditions in specific areas, said Thomas Shephard, water counsel for the county.

These days, Shephard said, "There's just a feeling that people don't want to give the government more information. We can all understand that."

But, he added, “As an owner of quite a few wells, I would happily give permission to give the data” to the state.

Landowners have "valid concerns" that confidential information disclosed to the state will ultimately be disclosed to the general public, said Julianne Phillips, program manager for the San Joaquin Farm Bureau Federation. Those concerns include litigation from their neighbors.

“It would turn into landowner vs. landowner, finger-pointing about whose well is deeper and ‘you’re harming me and how much money can I get for that,’ ” she said.

However, a state representative at Wednesday’s meeting said that once the state obtains the well information, it remains bound by law to keep that information confidential.

###

State Water Resources Control Board Lifts Curtailments for Pre-1954 Water Rights Holders

ACWA Water News | November 13, 2014

The State Water Resources Control Board this morning announced that it has lifted water right curtailments in the Sacramento and San Joaquin River watersheds for water rights holders with a priority date of Dec. 31, 1953 and earlier. This action is based on reduced diversion demands after Oct. 31 and the switch in diversion demand from direct diversion to storage.

According to the State Board's notice, this announcement does not affect other types of curtailments including Term 91 curtailment and curtailment orders for Deer Creek. Water rights holders should continue to comply with the terms and conditions of their water rights and keep a record of all diversions.

The State Board will continue to monitor water conditions and current curtailments and will post updates to its website at <http://www.swrcb.ca.gov>.

Water right holders with questions may call the State Board's Drought Year Curtailment Hotline at (916) 341-5342.

(This page intentionally left blank.)

4 Million Grant Awarded to Expand San Ramon Valley Recycled Water Program

The expansion will bring recycled water for landscape irrigation to parts of Dublin and San Ramon.

San Ramon Patch | November 11, 2014

The California Department of Water Resources, Division of Integrated Regional Water Management (DWR- IRWM), announced an award of a \$4 million grant to expand the San Ramon Valley Recycled Water Program, which is managed by the Dublin San Ramon Services District (DSRSD) East Bay Municipal Utility District (EBMUD) Recycled Water Authority. The expansion will bring recycled water for landscape irrigation to the Santa Rita Jail and Federal Correctional Institution in central Dublin, areas west of Interstate 680 in Dublin, and additional parts of Bishop Ranch, central San Ramon, and Danville.

“By expanding our recycled water system, we’ll be providing immediate drought relief, saving 867 acre feet of drinking water every year,” said DSRSD Interim Engineering Services Manager Rhodora Biagtan. “That’s more than 282 million gallons of water saved every year, enough to supply 1,935 DSRSD families.”

Recycled water is highly-treated wastewater used for landscape irrigation or industrial purposes. It flows through a system of reservoirs, pumps and pipes separate from the distribution system that delivers water to household taps.

“The biggest challenge with increasing our number of recycled water customers is the high cost of constructing a separate distribution system,” said EBMUD General Manager Alexander Coate. “This grant accelerates our construction and gets us \$2 million and nearly half a million gallons per day closer to our long-term goal of increasing our recycled water supply, and our short-term goal of managing through this historic drought.”

The \$4 million grant will be split between the two agencies and is one of 11 projects in the San Francisco Bay Area to receive funding from the DWR-IRWM 2014 Drought Grant Solicitation. The expansion will add nearly nine miles of new pipelines to the existing 44.2 miles of recycled water distribution and transmission pipelines. The total cost of the project is \$11.8 million (\$6 million for pipelines serving DSRSD customers and \$5.8 million for pipelines serving EBMUD customers).

This project has three pipeline components:

Project Component #1, Central Dublin Pipeline, adds 1.5 miles of pipe to deliver an average of 147 acre feet of recycled water per year to six federal and county facilities in Dublin.

Construction is expected to begin as early as December and be completed by January 2015.

Project Component #2, West Dublin Pipeline, adds 3.6 miles of pipe to deliver an average of 160 acre feet of recycled water per year to 34 customers located west of Interstate 680 along Amador Valley Boulevard in western Dublin, including city streetscapes and parks, elementary schools, business parks, and a fire station. Design is expected to be completed by April 2015, and construction will occur during the summer.

Project Component #3, San Ramon Valley Phase 2, adds 3.6 miles of recycled water pipe and expands the EBMUD recycled water distribution system into the Bishop Ranch Business Park. Once installed, the pipes will deliver about 477 acre feet of recycled water for landscape irrigation to 39 irrigation customers including AT&T, City of San Ramon and Sunset Development. Construction work in the Bishop Ranch area is expected to begin next year.

History of SRVRWP

Operational since 2006, the San Ramon Valley Recycled Water Program has provided more than seven billion gallons of recycled water to 358 locations. Phases one and two of this project cost \$87 million and included construction of the Jeffrey G. Hansen Water Recycling Facility, two reservoirs, six pump stations, and 16.7 miles of the transmission pipeline, the backbone of the system from which the smaller distribution pipelines serve individual customers.

More than 20 percent of the water used by DSRSD customers is recycled.

Last year, EBMUD daily provided almost 8.1 million gallons of recycled water for landscaping, commercial, and industrial needs. That's as much water as nearly 33,000 average EBMUD households use each day. In addition to the San Ramon Valley Recycled Water program, EBMUD also provides recycled water to customers in Richmond, Emeryville, Oakland and Alameda.

DSRSD provides water to Dublin and the Dougherty Valley area of San Ramon and EBMUD serves the rest of San Ramon, Danville and 20 other communities in the East Bay.

###

Jerry Brown looks to solidify legacy with big state projects

SF Chronicle

Monday, November 10, 2014

SACRAMENTO — Fresh off winning a historic fourth term as governor, Jerry Brown plans to push ahead with a pair of projects that could transform the California landscape: high-speed rail and delta water tunnels.

The ventures have strong critics. But having soared into office with 59 percent of the vote and no concern about winning another term, Brown is in a unique position to solidify the legacy he's seeking: as a fiscal steward who built historic projects for the state.

"I do come from a long line of people who have achieved something, and I feel I have a lot to live up to. And I'm going to make sure during these next four years I maximize that opportunity," Brown said Wednesday. His father, Edmund "Pat" Brown, was governor in the 1960s and built his legacy around the projects he ushered in — including the state's water delivery system and its Master Plan for Higher Education.

Brown said he also wants to reform criminal justice policies and address problems that arose after he shifted low-level offenders from overcrowded prisons to unprepared jails in 2011. He said he wants to continue to invest in schools, which received budget flexibility under a law he signed last year. And he plans to push policies that reduce carbon pollution and enlist other states and countries to help address climate change.

Jessica Levinson, a law professor who teaches political ethics at Loyola University in Los Angeles, said Tuesday's passage of Brown's signature ballot measures, Props. 1 and 2 — a \$7.5 billion water bond and a rainy-day fund — give Brown added credibility as he seeks to cement his legacy on infrastructure and budget issues.

"Both of those are forward-looking, long-term changes to the California Constitution meant to put us on a strong footing going forward," Levinson said.

Those big-picture priorities are as important as his desire to leave the state in strong fiscal shape, Brown said, adding that his next term will be defined by his efforts to strike the right balance between saving and investing.

"Going forward, it's a challenge to be fiscally responsible and, on the other hand, to keep faith with the aspirations and hopes of the Democratic Party and those who are looking for more and more government spending in investment," he said. "If you abandon that, you become really incoherent as a Democratic leader. If you totally give into it, you fall prey to budget deficits and chaos and public dissatisfaction."

Brown has faced mounting criticism over the \$68 billion high-speed rail project, which was a popular idea when voters approved \$8.6 billion in bonds to launch the endeavor in 2008. Since

then, the project has been stalled by lawsuits, and some public opinion polls show voters no longer support it.

Bond win

Last year, before construction could begin on the first 130 miles, a Sacramento County judge blocked the sale of the bond, saying the project didn't have environmental clearance and didn't properly identify sources of funding for the rest of the rail line.

The state's Third District Court of Appeal reversed that ruling in July, allowing the bond sale to proceed. Opponents — including Kings and Kern counties, Union Pacific Railroad and some Central Valley landowners — turned to the state Supreme Court, which refused to hear the appeal last month. That was a major boost for supporters like Brown and environmental groups, who say the rail will reduce car pollution and create jobs across the state.

Another project that has faced immense criticism, particularly from environmental groups, is the state's \$25 billion plan to dig two 40-foot-wide tunnels to carry water from one end of the Sacramento-San Joaquin River to the other. State officials say the tunnels are needed to restore the delta ecosystem and stabilize the water supply for 25 million Californians and 3 million acres of farmland from San Jose to San Diego.

The state Department of Water Resources is revising a draft environmental impact report that will be released for public comment early next year.

But political observers say there are other issues they hope Brown will address in his fourth term.

Political consultant Joel Fox, president of the Small Business Action Committee, said many in the business community want the governor to loosen restrictions in the California Environmental Quality Act — known as CEQA — which they say impedes business and job development in the state. Fox said additional efforts to reduce public pension liabilities, which Brown has also promised, remains a key concern.

But Fox said the wild card will be whether Brown agrees to change the state's tax codes to temper the feast-or-famine result of relying heavily on high-income earners.

"Taxes are going to be a big part of the discussion over the next two years, and part of the ballot on 2016," said Fox, a Republican.

Under pressure

Fox predicted that Democrats will pressure Brown, also a Democrat, to extend the temporary taxes mandated by Prop. 30 that are set to gradually expire starting in 2016. Fox said he expects that Democrats will also push Brown for changes to Prop. 13, the landmark law from 1978 limiting property taxes. Some Democrats have sought a "split roll," which would exempt commercial properties from Prop. 13.

“Some of the folks who want to enhance revenue might go to the business community and say, ‘If you don’t stand as a roadblock to the extension of Prop. 30, we won’t go for a split roll,’ ” Fox said.

Brown said Wednesday that he has no plans to make any tax-code changes, especially on Prop. 30.

“To me, Prop. 30 was temporary,” he said. “That’s what I said, and I meant it.”

Levinson of Loyola University said that Democrats who may try to take Brown off track or pressure him for big spending items have already gotten the signal that he will keep them in line, and “he’s very comfortable flexing his political muscle,” she said.

Jon Fleischman, publisher of the popular GOP website FlashReport.org, said Brown is on track to be a “status quo governor” who will continue with his major initiatives — but with a political challenge he’s never faced.

“The day he got re-elected, he became a lame-duck governor who will not be able to get through any agenda that is contrary to the public employees unions,” Fleischman said.

Which is why Fleischman speculates that Brown will now “look for a shiny new object.” His legacy in the next four years “all depends on whether he wants to finish his career as a governor or a U.S. senator.”

Serious contender

With Sen. Barbara Boxer expected to retire in 2016, Brown would be a serious contender, if interested. Brown’s lengthy political resume includes statewide posts as attorney general and secretary of state, as well as mayor of Oakland and chairman of the state Democratic Party. He sought the Democratic nomination for U.S. president three times.

He’ll be an octogenarian when he finishes his term as governor in 2018, but Brown hasn’t ruled out yet another title after that.

A day after winning re-election last week, he quipped to reporters that when he leaves office, he’ll be free to seek the position of termed-out Tom Torlakson — the superintendent of public instruction.

Brown said he prefers not to think about whether his latest campaign was his last.

“I don’t like to think about my last campaign,” he said. “I find it a depressing thought. So, I’m not.”

###

(This page intentionally left blank.)

Who owns California's water?

Thousands own the rights, making for a tricky situation

KCRA | November 6, 2014

STOCKTON, Calif. (KCRA) —Is there enough water? Well, not if everyone with rights to the water wants it.

One California county has more than 1,400 people with water rights.

KCRA 3 found that more people have the rights to California's water than there is water to supply them.

"What is it? Whiskey is for drinking, water is for fighting," San Joaquin County farmer Paul Marchini said. "You know that old saying."

Marchini would know. He inherited 400 acres of farmland in San Joaquin County from his grandfather, but it's not just the land that's valuable. It's the water.

"You want to sell your property, and in this day and age," Marchini said. "And today -- and you had just a license to get water. Your value of your ground would be a lot less than somebody who had riparian or pre-1914 rights."

California has a complex and confusing set of water regulations.

When Marchini talks about "riparian rights," he means land touching a lake, stream or river.

People who own those rights get first dibs on the water.

The rights go with the land, but only the land that borders the water. If you have a big piece of property and sell it off in parcels, for example, only the parcel of land bordering the water has those rights.

You can't sell the land and retain the water rights. They stay with the property.

It's far different for some of Marchini's neighbors farther away from the San Joaquin County Delta.

"They have a storage tank out here -- they bring the water in," said Paul Zerby, in the small Lodi neighborhood of Tower Park Village. "They treat it and then furnish the homes."

Tower Park Village owns a license for what is called "appropriative rights."

In other words, the neighborhood is allowed to divert water from the Delta to the Village under a state license. It has to wait in line, however, behind other "senior" rights holders.

"Our main concern was the price," said Zerby of his water bill every month. "It was always so high."

As a result of their appropriative rights license, Tower Park has been told to cut back on the water it uses.

"A lot of people moved out of here not just because of the water, but we have dues here we pay to the association," Zerby said. "You know, the water, the utilities -- we use propane in the park, so a lot of these things are going up. And a lot of these people are retired and on a fixed income and they just can't afford it."

Water -- especially today in a period of sustained drought -- may be just as valuable as gold.

The number of people vying to get that water is high. Even in good times, far more people own the rights to the water than there is water to give them.

"Right, five times more," Marchini said.

When KCRA 3 asked him if that surprised him, he said, "Given the atmosphere over there in Sacramento, no."

It could be even worse.

Experts at UC Davis said it may be as high as eight times more rights-holders.

KCRA pulled the numbers county by county and found more people (more than 1,400) have water rights in San Joaquin County than in any other county in the state.

"We're going to have to revisit our existing system of surface-water regulation, because climate scientists tell us that the aggregate amount of water available to 38 (million) Californians is shrinking at a time when that population is expanding," UC Davis water rights expert Richard Frank said. "I think these problems, these conflicts surrounding water, are going to become more protective in the years to come."

"About 10 percent of the water rights-holders have called on 90 percent of the water," said Felicia Marcus, chair of the California Water Resources Control Board. "We would always like more information in real time. It would be fabulous if we could actually meter and see what people were using on a real-time basis, but that will be up to the Legislature."

Marcus said the state has acted against people using too much water.

The state constitution allows the board to fine people and reduce water use if someone is taking too much water.

Right now, the state only requires riparian rights-holders to estimate how much water they use every three years. Newer license-holders report their estimates every year.

Making things more complicated, the state doesn't just consider who has rights to the water, but it also also looks at the quality of the water itself.

"On top of the traditional layering of water rights, there are water quality standards that deal with water quality but also fish and wildlife under the public trust doctrine," Marcus said.

Zerby and his neighbors get to keep using water that's necessary for their health and safety, but no more than that.

As for farmers like Marchini, they are seeing the consequences of so much water being pulled out of the Delta.

Salt water has begun to seep into the irrigation.

"I was collecting roughly about 200 parts per million at the beginning of the year," Marchini said. "Now I'm up to 600 to 700 parts per million of salt, so I'm putting a lot more salt on my ground now."

Some crops won't grow in salt-soaked land.

Others, like Marchini's grapes, are starting to show visible signs, decreasing the price he can get.

Still, the San Joaquin County farmer said he has no choice.

"What I'm hoping is that we'll have some decent rains that will be able to flush that salt out," he said. "I'm hoping."

His neighbors in the Delta, like those in Tower Park Village, have no choice but to conserve.

"We enjoy it out here and we'll stay here as long as we can," Zerby said. "If the water and everything don't go skyrocket, I think we can make it."

###

(This page intentionally left blank.)

First water from new Bay Tunnel reaches Crystal Springs

Almanac | October 16, 2014

Eighty years ago, the arrival of the first drinking water to make the long journey from the Hetch Hetchy reservoir in the Sierra Nevada to Crystal Springs Reservoir was greeted at the site of the Pulgas Water Temple off Canada Road north of Woodside by a crowd estimated at 20,000 people.

On Wednesday (Oct. 15) a much smaller group met in the same place to greet the arrival of the first drinking water to travel from Hetch Hetchy to Crystal Springs via a newly completed Bay Tunnel, which goes under the San Francisco Bay.

The new tunnel should make the water supply for the Peninsula and San Francisco much more likely to be available after a major earthquake, officials say.

According to the San Francisco Public Utilities Commission, the water system that serves San Francisco and the Peninsula was built in response to the 1906 earthquake and the devastating fire that followed it. The completion of the system was celebrated on Oct. 28, 1934, at the water temple site. The classical temple that is now at that location had not yet been built, so a plywood mock-up stood nearby.

The Loma Prieta earthquake, which happened 25 years ago on Oct. 17, was similarly the impetus for the Bay Tunnel and much of the other recent work that has been done to improve the system bringing water from Hetch Hetchy to the Bay Area. The tunnel replaces two aging pipelines that sat on the bottom of the Bay.

San Mateo County Supervisor Dave Pine was among the officials at the Oct. 15 ceremony, which followed a gush of water that sped through the water temple and down a culvert behind it to the reservoir.

"San Mateo County has been pivotal to the water supply of San Francisco going back to 1852," when the first water storage reservoir was built here, he said. Today, as scientists warn that another major earthquake could be imminent, the system is ready, he said, "This work was done ahead of" a possible disaster, he said.

Nicole Sandkulla, CEO of the Bay Area Water Supply and Conservation Agency, said she was "happy and relieved to see this water from the Bay Tunnel."

"This is a project that will ensure a reliable supply ... through the future," she said.

The Bay Tunnel is just one part of the [Hetch Hetchy Water System Improvement Program](#), with a \$4.6 billion budget, primarily designed to assure water will still be available after an earthquake. The project also will develop new sources of groundwater and a supply of recycled water.

###

(This page intentionally left blank.)

Bay Tunnel, The First Tunnel Under San Francisco Bay, Begins Delivering Hetch Hetchy Drinking Water

Water Online, October 15, 2014

The seismically-resistant backbone of the Hetch Hetchy Regional Water System comes into service the week of the 25th Anniversary of Loma Prieta Earthquake

Recently, the San Francisco Public Utilities Commission (SFPUC) joined with Dave Pine, President of the San Mateo County Board of Supervisors, to celebrate the completion of the first tunnel under San Francisco Bay at the location where the first Hetch Hetchy Water through the tunnel enters Crystal Springs Reservoir. Eighty years ago this month, a similar celebration occurred in this exact spot when Hetch Hetchy water was first delivered to the San Mateo-Peninsula region through Bay Division Pipeline 1. That original lifeline, and the entire Hetch Hetchy System, was built in response to the 1906 earthquake and the devastating fires that ensued in its aftermath.

History repeats itself. The multi-billion dollar Water System Improvement Program (WSIP) is a response to the 1989 Loma Prieta Earthquake and the likely seismic event that will occur in the Bay Area in the next 30 years. As one of the last WSIP projects, the Bay Tunnel replaces two aging pipelines (Bay Division 1 & 2) that sit on the Bay floor. The new Bay Tunnel acts as a seismically-reliable lifeline connecting our Hetch Hetchy and East Bay water supplies with customers on the Peninsula and in San Francisco.

“Protecting our water supply also protects our entire regional economy,” said San Francisco Mayor Ed Lee. “The new Bay Tunnel is part of San Francisco’s multi-decade effort to upgrade the seismic reliability of our Hetch Hetchy Regional Water System and strengthen our water and sewer infrastructure to prepare for the next big earthquake.”

While the occasion is historic, equally praiseworthy is the engineering prowess demonstrated by the hard working women and men that designed and built the Bay Tunnel. Construction on the Bay Tunnel began in April 2010, and the tunnel was just put into service after weeks of testing and disinfection. At \$288 million, the project was delivered on-time and below the original budget estimate of \$313 million.

“Ratepayers are investing in critical infrastructure upgrades to ensure that precious Hetch Hetchy Water will continue to be delivered after a major seismic event,” said Nicole Sandkulla, CEO of the Bay Area Water Supply and Conservation Agency. “The decision to invest 100 percent of rate payer money now, rather than later, will prepare us for the future major seismic event that we know will occur in our region.”

The Bay Tunnel is one of the last projects in the SFPUC’s WSIP – one of the largest water infrastructure improvement programs in the country. Like water utilities in many parts of the country and world, the SFPUC is in a race against time to buttress its aging infrastructure. Since 2002, the nearly \$4.8 billion WSIP has strengthened the water lifelines that cross over the major earthquake faults in the Bay Area to deliver high-quality Hetch Hetchy Water to our customers. Comprised of 83 projects, WSIP is more than 80 percent complete and has seismically

strengthened vulnerable pipelines and reservoirs, constructed redundant facilities and completed major projects like this one as well as the seismic slip-joint upgrade project at the Hayward Fault.

WSIP was also an important economic engine helping to sustain our Bay Area economy after the 2008 Recession. Since 2002, WSIP investments have created 11,000 jobs, generated nearly 7,000,000 craft hours for workers and have trained new workforces in skilled trades, all while stimulating our local economy.

“The new Bay Tunnel will ensure that we have reliable access to Hetch Hetchy water at all times, particularly within twenty-four hours of a major earthquake,” said SFPUC General Manager Harlan L. Kelly, Jr. “The Water System Improvement Program has been an ambitious and successful undertaking. We are nearing completion of the program, with just a few construction projects remaining such as the Calaveras Dam rebuild, which will replace the original dam built in 1925.”

The 1989 Loma Prieta earthquake was a wake-up call for the Bay Area, serving as the catalyst for WSIP, the Bay Tunnel and many other infrastructure projects. The timing could not be more prescient. The US Geologic Service predicts a major earthquake will occur within the next 30 years in the Bay Area.

###

California overwhelmingly voted for a water bond. What happens now?

Lester Snow is the answer man on the water bond

LA Times | November 11, 2014

Californians, you just voted yourselves a \$7-billion-plus water bond measure. What happens now? Lester Snow can draw you the map of water needs and detail the money being spent. He's navigated state waters for years in a multitude of jobs, among them head of the state's Department of Water Resources and other agencies. He's spent more time on water than Duke Kahanamoku. Today he heads the private California Water Foundation, which supported the bond measure that California now has to spend wisely..

Is the bond measure a major step or an incremental one?

It's funny to say it, but it's both. Passing the bond is so significant, and for every bond dollar, you may get three or four other dollars invested. [But] I also refer to it as a down payment on what needs to be done in California. It gets us started, but it would be a mistake for anyone to think that now that we've passed this bond, our worries are gone.

Some bond projects may not be realized for 10 or 20 years.

Sometimes for the water to manifest from investments takes a while. We have a water system that hundreds of billions have been invested in over the years, and we have been slow to reinvest in it. With the \$7.5 billion, we're jump-starting some of that. We see how shortages can affect the economy and people's lifestyles, so we not only need this bond but to steadily reinvest in the system.

[With] the drought, there's been threatened litigation over transferring a few thousand acre-feet here or there. In the meantime, we discharge 1.5 million acre-feet of wastewater into the ocean instead of reclaiming it. There's money in the bond to reclaim more and more of that water. As the mayor of L.A. has pointed out, there's more room for conservation, and it takes money.

By and large, water is cheaper than most people's cable or cellphone bills. We like it when it's not expensive, but when it's not there, it causes many problems.

Are you concerned that voters who see no immediate result of the bond vote may be reluctant to support any more water infrastructure spending?

What voters expect and deserve is to see some things happen quickly and to see their elected officials talk about the long-term investments for the water supply. There are projects that can

happen quickly and show people results: conservation projects, wastewater recycling, capturing urban storm water.

Is there a real correspondence between what the bond money will do and what California water profoundly needs? With thousands of water agencies, our problems are as much about structure as supply.

That's fragmentation. In the L.A. basin there's 88 cities but 400 water providers. [The] bond provides incentives for regional strategies to break down some of those barriers, but it's not the end-all and be-all. The governor earlier this year laid out a water action plan, which pointed out that there is no silver bullet. It can be characterized as an all-of-the-above approach with more attention to diversification of our supplies and our system.

With previous [water] bonds, Proposition 84 and 50, the only way you could get grant money is if you coordinated with your neighbors, instead of everybody doing their own little things with their own little jurisdictions. That started breaking down some barriers. This bond will provide additional funds for continued cooperation and collaboration.

The bond includes \$2.7 billion for ground storage, but it doesn't specify dams or underground storage, which is a ferocious source of partisan battles in Sacramento.

It's likely it will be both. The bond lays out that the funds will go for public benefits associated with storage and assigns the California Water Commission to develop rules and guidelines for storage projects. There's already some surface storage projects that have been under consideration for a long time: the Sites Reservoir in the Sacramento Valley; there's been talk about raising Lake Shasta; a proposal for an expanded reservoir on the upper San Joaquin River.

I think you'll see others coming forward with smaller projects to capture floodwater and recharge it into groundwater basins. I'm confident that while there may be some conflict, this is going to provide California with additional storage throughout the state.

Where might the most resistance to new bond projects come from?

Stuff that you might call conflict I think would simply be competition over funds, and that's actually a healthy thing. Because of the drought, there's more interest in getting projects done. We're going to see a great deal of creativity in implementing the bond.

How much of what the bond is funding will be about moving water around versus creating so-called new water, for example, by reclaiming polluted aquifers like the one in the San Fernando Valley?

The San Fernando groundwater basin has been contaminated and gone unused for some time. There's clearly funds in the bond to help clean it up. That [would] give L.A. more flexibility. Once they clean up that basin, they may be able to use it to store highly treated reclaimed water that's currently being discharged to the ocean. And should we ever have a wet year again, they'll be able to put water in that basin.

Some of these projects depend on matching funds, local, regional or federal. How do you think a GOP Congress might look on that?

We haven't had much in the way of federal investment for a long time. I don't think anybody has planned on federal money, so it really is state and local funds going into these projects.

Is there still hostility from the north toward the south on water issues?

Not like the old days. The conflict and discussion over fixing the delta, which is not part of the bond, can generate those attitudes. But especially because of drought and the impact of climate change, people see we're all lumped more together than they did maybe in the '80s.

California was the only Western state with no plan for managing groundwater. As of September there is statewide regulation of groundwater.

It was the tragedy of the commons, a race to the bottom. You as an individual could invest in this sophisticated storage system and your neighbor could pump out all the water you stored. Now there'll be a structure to keep track of who's pumping, how much, who's putting water in, and therefore [the state will] be able to better manage and incentivize groundwater recharge projects. Where there's a groundwater basin, [the plan] requires a groundwater agency to be set up and to develop a sustainable groundwater plan. [The agency has] the authority to require data to be submitted and to charge fees and allocate pumping if that's necessary. A failure on the part of the local entity can result in the state [water] board coming in.

You said \$3 or \$4 might be invested for every dollar of bond money. Whose money, and for what purpose?

In previous bonds we've seen the local agency proposing the project bring in 80 cents and the bond, 20 cents. Having state money incentivizes people to put out money for projects they've been thinking about for a while.

Does the Legislature have any role in how the bond money is spent?

We've seen with previous bonds that the legislative committees will want to hear from appropriate agencies how they plan to implement the bond, and given the drought, I think the Legislature will want to see timelines: How soon can you get this money out; how quickly can it result in benefits? It was a bipartisan bond. That's not to say there won't be arguments, but I do not see this becoming a political morass. People want to see something get done.

If you were designing a water system from scratch, it would not look like California's.

You have a water system that's evolved over 150 years. If we knew then what we know now, we might have done things differently. But this is reality, so you try to make the best decisions. That's why this bond being so diverse and funding a wide array of water activities is so important. There's no one-size-fits-all.

This interview has been edited and condensed.

Best use of water bond money now at forefront

Western Farm Press |Nov 11, 2014

California's Proposition 1 passed. That's the good news – at least tentatively.

An editorial in one northern California newspaper that went on record ahead of the November election to oppose the California water bond measure on philosophical grounds asks a very logical next question.

Now what?

While most other newspapers of stature in California endorsed the bond measure, The Chico Enterprise Record reluctantly called on voters to oppose it in an Oct. 4 editorial because of how the newspaper says the law was written.

Though the \$2.75 billion in it for storage doesn't spell it out specifically, the rumor mill suggests two popular projects – Sites Reservoir in northern California and Temperance Flat in Central California – are at the front of the line for that money.

That decision will ultimately be made by the California Water Commission, which by a simple majority vote of the nine-member board can legally give thumbs down to Sites and Temperance in favor of different projects.

That seems to be the Chico ER's concern, which is arguably legitimate from my personal standpoint as a native northern Californian. With most of California's voter representation outside of northern California and the majority of its water supply generated in the north it's easy to see where the battle lines get drawn.

Another big concern gleaned from the ER's first editorial is that Sacramento lawmakers and regulatory agencies can't be trusted to do the right thing. There are plenty of examples of regulators and lawmakers throwing agriculture under the bus after an assurance that votes and decisions would go agriculture's way.

Yet without voter approval of the bond, all these arguments and suppositions would be moot. That it passed gives hope to California that the right decisions will be made to benefit the entire state.

I would argue that the easy work has been completed and the heavy lifting now begins. Just because voters approved publicly funding \$2.7 billion in a loosely-defined idea of water storage does not necessarily equal two surface storage facilities.

While the law does allow that money to go towards surface storage projects defined in the CALFED Bay-Delta Program Record of Decision, it also says the money can be spent on groundwater storage, groundwater contamination prevention or remediation projects that provide water storage benefits, conjunctive use and reservoir reoperation projects, and local and regional surface storage projects that improve the operation of water systems in the state and provide public benefits.

There's a catch in the law that says projects "shall not be funded" unless they provide "measurable improvements to the Delta ecosystem or to the tributaries to the Delta."

Those who follow the political process know the devil is always in the details and in who threatens to sue over those details.

Just because the water bond passed is no time to sit back and relax. Agriculture and its allied organizations and agencies need to develop a full-court press to ensure that all the money in this bond is used wisely to benefit all of California.

###

The California Water Bond is a Beginning, Not an End: Here's What's Next

The Huff Post, November 5, 2014

by Peter Gleick, Kristina Donnelly, Heather Cooley

California voters have approved Proposition 1 - the 2014 California Water Bond. The ultimate value and effectiveness of the bond will depend on how it is implemented and how the funds are spent. Here are some key issues to watch, things to understand about the new water bond, and recommendations:

1. Accelerate funding for disadvantaged communities: Water agencies that disperse (and receive) funds from Proposition 1 should rapidly expand efforts to provide desperately needed and long-overdue funds for disadvantaged communities that lack safe and reliable access to affordable tap water. Some of these communities have suffered from poor-quality water for years. State agencies know where the needs are and we know how to fix these problems through technology and improved treatment, new water delivery infrastructure, cleanup and protection of groundwater, and merging of ineffective small water agencies with larger or more effective ones. But money must also be made available for ongoing operation and maintenance of these systems.

2. Monitor the California Water Commission: The largest single portion of bond money was the \$2.7 billion earmarked for the California Water Commission to allocate for storage projects. Given the ambiguity in the bond language, however, these funds could be used for almost any "storage" project, so long as it offers public benefits and improves water conditions in the Sacramento-San Joaquin Delta region, broadly defined. Before the money is allocated, the California Water Commission must define "public benefits" and decide how to review projects brought to them for consideration. Key here will be (i) the make-up of the commission, which has nine members appointed by the governor, and (ii) whether the commission makes these decisions transparently and with real public input and participation. Currently, the terms of three of the nine members are set to expire in January 2015 (Delfino, Hintz, and Del Bosque), two in January 2016 (Saracino and Ball), and the rest in January 2017 (Byrne and Quintero) or 2018 (Orth and Curtin). Thus, five out of the nine members potentially will be replaced before any final decisions on storage projects are made. Public oversight over the CWC process will be critical.

3. Keep an eye on groundwater: Proposition 1 (and the severe drought) has directly and indirectly raised the profile of groundwater in California. Coupled with the [new state law](#) requiring (slow) expanded monitoring and management of groundwater systems, Proposition 1 could provide substantial funding for creating groundwater management systems, accelerating groundwater storage projects, and cleaning up contaminated groundwater aquifers. For the first time, these precious and persistently over-tapped and abused water systems might actually be sustainably managed. That would be a good thing.

4. Don't expect any immediate relief from the drought: As the Pacific Institute explicitly noted in its [assessment of the language of Proposition 1](#), nothing in this bond measure can happen fast enough or widely enough to address our immediate water challenges. The only things that can be implemented quickly enough to mitigate the impacts of the current drought are serious and aggressive water conservation and efficiency efforts, and heavy rains -- and only the

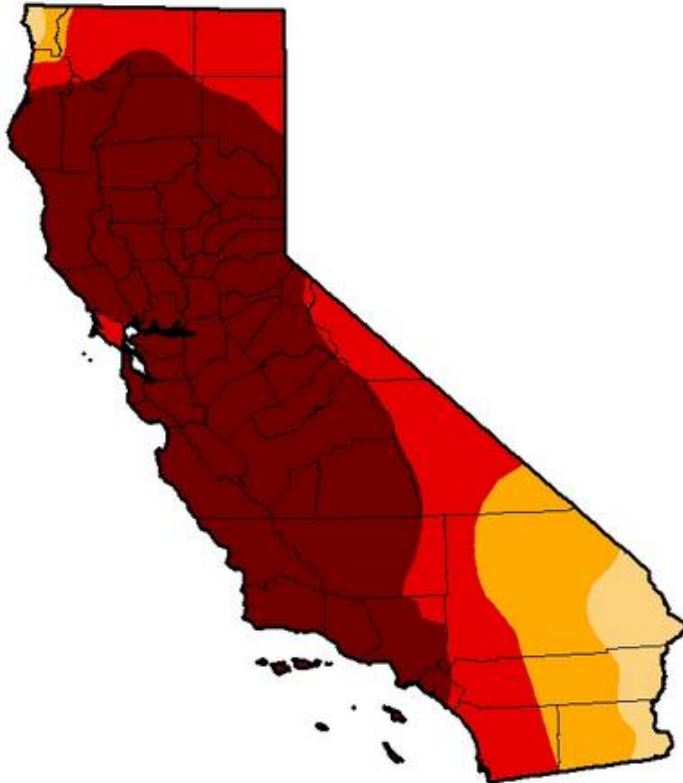
former is under our control. Alas, only one percent of bond funds will be spent on conservation and efficiency, and these are the most important things we should be doing now.

5. Don't assume Proposition 1 is the answer to our water problems: It isn't. It is an expensive down-payment on a broad set of important projects that have been underfunded for years. At best, this money will help with some critical challenges, raise awareness of new steps that have to be taken, and highlight the need for other vital efforts. If the passage of the water bond makes everyone think we've done all we need to do, any momentum we've built toward solving our water problems will be lost. Let's not let that happen.

Follow Peter H. Gleick on Twitter: www.twitter.com/PeterGleick

U.S. Drought Monitor California

October 28, 2014
(Released Thursday, Oct. 30, 2014)
Valid 8 a.m. EDT



Intensity

-  D0 Abnormally Dry
-  D1 Moderate Drought
-  D2 Severe Drought
-  D3 Extreme Drought
-  D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Brian Fuchs
National Drought Mitigation Center



<http://droughtmonitor.unl.edu/>