## **August 12, 2015 – Agenda Item #6D**

# BAY AREA WATER SUPPLY AND CONSERVATION AGENCY BOARD POLICY COMMITTEE MEETING

#### August 7, 2015

Correspondence and media coverage of interest between July 20, 2015 and August 7, 2015

## **Media Coverage**

**Drought:** 

Date: August 4, 2015

Source: SF Gate

Article: Judge Ok's state water restrictions on farmers

Date: August 3, 2015 Source: Associated Press

Article: Water & farmers: Things to know about AP-GfK drought poll

Date: July 31, 2015 Source: Maven's Notebook

Article: Secretary Laird, legislators, and organizations react to Senator Feinstein's introduction

of the California Emergency Drought Relief Act of 2015

Date: July 29, 2015 Source: LA Times

Article: Sen. Dianne Feinstein introduces \$1.3-billion California drought-relief bill

Date: July 29, 2015 Source: LA Times

Article: Drought now Californians' top concern, poll finds

## **Water Conservation:**

Date: August 7, 2015

Source: San Jose Mercury News

Article: Report shows that Palo Alto exceeds water saving target but lags behind neighboring

Cities

Date: August 6, 2015 Source: AccuWeather.com

Article: California Ahead of Hefty Water Cutback Requirement Despite Record Heat in June

Date: August 5, 2015

Source: San Jose Mercury News

Article: San Jose Launches program to send water usage reports to 21,000 homes

Date: August 5, 2015 Source: Palo Alto Weekly

Article: Free drought gear offered to Palo Alto residents

Date: August 4, 2015 Source: Wall Street Journal

Article: In California, Even Firefighters Conserve Water

Date: July 31, 2015 Source: SF Chronicle

Article: How to report water waste with a smartphone

Date: July 30, 2015 Source: LA Times

Article: Californians cut water usage by 27% in June, but officials remain wary

Date: July 30, 2015 Source: SF Gate

Article: California drought conservation: Hall of Fame and Shame

Date: July 30, 2015 Source: KQED Science

Article: Who's Saving Water in California and Who Isn't

## **Water Supply:**

Date: August 5, 2015 Source: Half Moon Bay

Article: Water managers meet over recycling strategy

Date: August 5, 2015

Source: AgAlert

Article: Workshops look at water bond storage spending

Date: August 1, 2015 Source: Davis Enterprise

Article: Locals take a look at future of California Water

Date: July 31, 2015 Source: GreenBiz

Article: It's not science fiction: Water tech can keep California golden

Date: July 21, 2015 Source: LA Times

Article: Fires followed by floods: California faces dramatic climate year with El Nino, drought

Date: July 20, 2015

Source: NPR

Article: Drought-Stricken California Farmers Look To Tap Urban Wastewater

## Judge OKs state water restrictions on farmers

SF Gate | August 4, 2015 | Kurtis Alexander

A Sacramento judge has given California water regulators the go-ahead to enforce pumping restrictions on a small Central Valley irrigation district, a decision seen as validation of the state's broader authority to restrict water during the drought.

Superior Court Judge Shellyanne Chang on Monday denied the request by the West Side Irrigation District in Tracy, in concert with three nearby water agencies, to block the state from enforcing notices to stop pumping water to farmers.

The district had argued that regulators had not provided due process and given the agency a chance to contest the state's demands.

Last month, Chang honored the water agencies' request for a temporary restraining order against the state, blocking regulators — at least tentatively — from enforcing what are called curtailment notices.

The State Water Resources Control Board has issued thousands of such letters in an effort to prop up low-flowing rivers and creeks after four dry years, and the challenge to the effort was seen as a crucial test of the state's power to enforce water restrictions.

But the case, and the reasons for the court's shift this month, turned out to be more about process than power.

After the initial ruling, the state rewrote its curtailment notices to clarify that the letters were informational only.

Chang reasoned that since the new notices were not binding, due process was no longer an issue.

State regulators have insisted that, regardless of how the notices read, they have the power to take enforcement action against any water supplier that pumps from rivers and creeks illegally. Seniority laws determine who can and can't take water.

Even before Chang's decision this week, the state water board sent a cease-and-desist order to the West Side Irrigation District, directing it to halt pumping or face fines of up to \$10,000 a day.

West Side officials did not immediately respond to a request for comment Tuesday.

While this week's decision removes one legal hurdle in the state's conservation crackdown, there are others. Several water agencies with "senior" water rights are suing the state, alleging that it doesn't have the power to restrict their longtime water claims. The cases are pending.

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## Water & farmers: Things to know about AP-GfK drought poll

Associated Press | August 3, 2015 | Emily Swanson

WASHINGTON — A new Associated Press-GfK poll finds most Americans think of water as a limited resource that can be depleted if people use too much. When asked to rate priorities when water is scarce during a drought, more said agriculture should be a top or high priority over residential needs, wildlife and industry.

Here is a look at some of the poll's key findings:

#### WATER IS A LIMITED RESOURCE

The poll shows two-thirds of Americans think of water as a limited resource that could be depleted if people use too much, while just one third think of it as a renewable resource that will always be there for people to use.

The belief that water is a limited resource crosses party lines, with a majority of both Democrats and Republicans agreeing.

People living in the West appear particularly likely to think of water as limited, the poll shows, but a majority of people from each region of the country think of water as more limited than renewable.

#### MOST SUPPORT WATER LIMITS

In cases of drought, 7 in 10 Americans say the government should place limits on the amount of water that people and businesses can use. Just 3 in 10 say it should not.

Among those who consider water a limited resource, 78 percent think government should place limits on its use when there is a drought. Just 57 percent of those who consider it a renewable resource say the same.

Just 2 in 10 Americans say they're closely following news of the drought happening in California and other western states.

#### FARMING TAKES HIGHEST PRIORITY

If there is a drought and restrictions must be placed on water use, three-quarters of Americans think agriculture should be a high or top priority to receive water, more than the two-thirds of Americans who say that of residential water use.

A narrow majority of Americans think water supplies for wildlife and ecosystems should be that high a priority, while just 4 in 10 say the same of water for business and industry.

#### PARTIES DISAGREE ON SOME PRIORITIES

Republicans (81 percent) are more likely than Democrats (74 percent) to say water for agriculture should be a high priority in a drought.

Six in 10 Democrats and about half of Republicans call water for wildlife and ecosystems a high priority. And half of Republicans but just over a third of Democrats say water for business and industry should be a high priority.

#### ---SUPPORT FOR LIMITING DEVELOPMENT

Eight in 10 Americans, including similar proportions of both Republicans and Democrats, say the government should limit developers to building only in places with adequate long-term water supplies, while just 2 in 10 think developers should be allowed to build in places with limited access to water.

Even among those who consider water a renewable resource, rather than a limited one, 70 percent say the government should limit developers to building in places with a good water supply.

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The AP-GfK Poll of 1,004 adults was conducted online July 9 to July 13, using a sample drawn from GfK's probability-based KnowledgePanel, which is designed to be representative of the U.S. population. The margin of sampling error for all respondents is plus or minus 3.4 percentage points.

Respondents were first selected randomly using phone or mail survey methods, and later interviewed online. People selected for KnowledgePanel who didn't otherwise have access to the Internet were provided access at no cost to them.

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AP-GfK Poll: http://www.ap-gfkpoll.com Read more here: http://www.sacbee.com/news/politics-government/article29836423.html#storylink=cpy

## Secretary Laird, legislators, and organizations react to Senator Feinstein's introduction of the California Emergency Drought Relief Act of 2015

Maven's Notebook | July 31, 2015 | California Water Alliance

On Wednesday, Senators Feinstein and Boxer introduced the California Emergency Drought Relief Act of 2015. Here are reactions from elected officials and organizations, listed in alphabetical order:

"Now that California senators Dianne Feinstein (D-CA) and Barbara Boxer (D-CA) have a bill introduced, both parties have their ideas on the table and negotiations can begin in earnest," said Aubrey Bettencourt, executive director of the California Water Alliance, Wednesday.

"Sen. Dianne Feinstein (D-CA)'s "California Emergency Drought Relief Act of 2015, released July 29, 2015 provides a fresh starting point. To develop a true recovery to California's drought and ongoing water crisis, however, our senior senator must collaborate with her colleagues across party lines and throughout the entire West, where water shortages and drought are a constant and common reality."

Bettencourt expressed some disappointment that the new legislation was so focused on California, rather than more widely on numerous critical issues faced by so many Western states suffering prolonged drought.

"A bill described by its authors as a 'water solution' solves little unless it helps more than California," Bettencourt emphasized. "It must involve every state caught up in this natural drought crisis or limited in its response to droughts and floods by federal policy and laws."

Washington, Oregon, Arizona and Nevada have all declared drought emergencies and are suffering right now. So are New Mexico, Utah, Colorado, Idaho, Wyoming, and Montana. National water policies affect the entire nation. Who knows what tomorrow might bring?

"While Sen. Feinstein announced plans to let other states hang provisions on her bill's framework, serving them in their needs seem more like an afterthought gesture offered to obtain support," Bettencourt noted. "It would have been better to include the West's needs from the start."

On the positive side, the bill includes funding for the poorest communities suffering without water and facing high unemployment. It envisions major funding for desalinization. It appears to offer limited funding for surface storage and, importantly, it recognizes that adding more sources of water is necessary.

"New sources are a must if we are to solve California and other states' chronic water deficits stemming from federal and state policies that overtax our water supply with competing and conflicting human and environmental requirements. Acceptable service to both will fail during times of drought," says Bettencourt.

"The bill shares many similarities with the House's recently passed multi-state Western Water and American Food Security Act of 2015, as the Senator's bill summary points out," Bettencourt continued, "It's our hope that common ground will bring both parties and chambers of Congress together as the legislative process progresses."

"There are many useful provisions in Sen. Feinstein's bill to help California now and long after this drought has ended," Bettencourt says. "While they are a necessity for many suffering through this crisis, 'relief' is not 'recovery.' We intend to study the details of the legislation carefully, because that's where the truth lies," she continued.

Sen. Feinstein's bill should mark a fresh start, with everything on the table and with a clear understanding of how it helps California – but more importantly the entire West – and considers fairly how other legislation already passed by the House or still in that chamber or in the Senate might marry with Feinstein's provisions," Bettencourt concluded.

Bettencourt, whose stakeholders are located in every part of California, said she hoped that Sen. Feinstein and Boxer would engage her organization along with many others to clarify and improve the bill now that she has introduced it.

#### From Secretary of Natural Resources John Laird:

"We applaud the constructive approach of Senator Feinstein and Boxer in crafting drought-response legislation that seeks to fairly balance the many needs of our diverse state. This approach recognizes the importance of water rights, environmental protection, and the need for flexibility in responding to this historic drought—and future droughts. The legislation aligns with the voters' overwhelming approval of Prop 1, the Governor's Water Action Plan to help move California toward water sustainability, and would help accelerate the ongoing state and local drought response and preparations for a future with even more frequent and severe droughts."

## From Congressman Jerry Mc Nerney:

"I am very concerned about some provisions included in the bill that are similar to the House Republican water legislation that I strongly opposed. Responsible solutions that address short and long-term water shortages in the West should reflect input from all affected districts and their representatives without prioritizing certain economies or geographic regions at the expense of others. This legislation does have some important ideas that will help address California's historic drought crisis — including water recycling and other conservation programs that can help people and communities better conserve existing water resources. I remain committed to working with my home state Senators and the California delegation as long as we move toward solutions that help create more water and provide the drought relief that is long overdue."

Last week, Congressman Jerry McNerney (CA-09) led his California and Oregon House Democrat colleagues in sending a letter to U.S. Senators Dianne Feinstein and Barbara Boxer opposing H.R. 2898, the Western Water and American Food Security Act of 2015. The signatories include 19 California representatives – half of the California House Democratic Delegation.

#### From Congressman David Valadao:

"Today the California Senators introduced a drought bill that included some useful provisions while doing little to deliver more water to California farmers and families. While I cannot support the bill as written, I remain hopeful we can come to an agreement that can advance through the House and Senate."

#### From the Western Growers Association:

"We want to express our thanks to Senators Feinstein and Boxer for re-introducing much needed legislation aimed at alleviating the short and long-term impacts of the historic drought in California. The bill that has been submitted today provides a basis to reconcile their bill with the recently passed House legislation. There is no time to waste as the impacts of the drought — exacerbated by an unbalanced regulatory scheme — are deepening in California and throughout the West. It's time to advance reasonable legislation before more family farms and communities are forced into economic disaster.

Our attention must also turn to passage of a western water bill to address the needs of other states being affected by the drought. Any effort aimed at helping California must be combined with efforts to devise solutions to problems faced throughout the West as a result of long-term drought. For example, the Colorado River Basin is currently experiencing its driest period in 50 years. While recent atypical summer rain storms have provided some relief, it is clear that members of the Senate must come together to address common concerns throughout the West. Western Growers urges the Senate to act quickly."

#### From the Westlands Water District:

"Water District is encouraged by the introduction by Senator Dianne Feinstein of the California Emergency Drought Relief Act of 2015. The State is facing unprecedented drought conditions, and the water supply shortages caused by four years of extraordinary dry conditions have been exacerbated by the restrictions imposed on the operations of the federal Central Valley Project and the California State Water Project under federal law.

The introduction of the California Emergency Drought Relief Act of 2015 is an important step in the enactment of legislation to provide much-needed relief for the public water agencies that receive water from these projects and for the people, farms, and businesses they serve. There are great similarities between this bill and H.R. 2898, the Western Water and American Food Security Act of 2015, which passed in the House of Representatives on July 16, 2015. However, there are also great differences.

Westlands looks forward to quick passage of the California Emergency Drought Relief Act of 2015 by the Senate and to subsequent discussions in conference to reconcile the two bills. Through its work with Senator Feinstein and Members of the House of Representatives, Westlands knows that these policymakers are genuinely interested in working together, with the District and other interested entities, to find a meaningful legislative solution to the chronic water supply shortages that have devastated the San Joaquin Valley and other regions of the State and to provide effective means of protecting at-risk species. The District looks forward to working with them to find common-sense solutions that serve the interests of all Californians."

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## Sen. Dianne Feinstein introduces \$1.3-billion California drought-relief bill

LA Times | July 29, 2015 | Noah Bierman

Sen. Dianne Feinstein filed her long-awaited legislative response to California's water crisis on Wednesday, hoping to broker a compromise that has eluded Congress through four years of fallow fields and brown lawns...

Feinstein's proposal would funnel \$1.3 billion over the next decade to storage, desalination and other projects. Her plan is in marked contrast to one approved by the GOP-controlled House, which would pump more water to San Joaquin Valley growers by rolling back environmental protections.

It is unclear whether areas of apparent common ground — including money for storage projects and efforts to control invasive predator species in the Sacramento-San Joaquin River Delta — will bring the warring sides together.

The stakes are high: whether Congress will pass any meaningful legislation to help drought-stricken California.

Feinstein, a Democrat known for deal-making and connections to agribusiness, said she had "no clue" whether Republicans in the House would endorse the bill and did not appear to engage extensively with them in crafting it.

"The House Republicans did their own bill and we did our bill," she said.

A key Republican, Rep. David Valadao of Hanford, did not embrace the bill but was careful to leave the door open to negotiations. He said Feinstein's proposal "included some useful provisions while doing little to deliver more water to California farmers and families."

"I remain hopeful we can come to an agreement that can advance through the House and Senate," he said in a statement.

Congress has been unable to agree on legislation since the drought began four years ago, in large part because Republicans and Central Valley farmers have clashed with Democrats and environmentalists over whether to alter environmental rules.

Feinstein has been on both sides of the divide, feeling scorn from environmentalists last year after she failed to include them in negotiations with growers. She said Wednesday that she had consulted with 12 environmental groups in crafting her latest bill but did not expect to please both sides.

"Nothing with water easily passes anything," Feinstein said. "That's just a given. This is the hardest area from which to legislate.

"You see the devil if you do. You see the devil if you don't," she added. "It's just very hard. We've tried to balance this."

Feinstein said she expects her bill to get a hearing in September and that she would like to pass a law by winter. But even if it did become law, the proposal would not be in its current form. Numerous lawmakers from both parties have introduced measures, or plan to, that could become part of the mix. Some are

specific to California; others take a regional view. Some are intended to fix short-term problems; others, such as Feinstein's, extend into the next decade.

House Republicans had looked to Feinstein as the one person who could bring key Democrats, including Gov. Jerry Brown, to a deal. The House bill approved this month passed largely along party lines.

Brown's natural resources secretary, John Laird, praised the additional funding in Feinstein's proposal, adding in a statement that many of its provisions align with state goals to increase recycling, conservation and water storage.

Water experts agreed that money seemed to be the bill's defining attribute.

"It's definitely a big boost in federal support. It's almost 10 times more than what the feds have provided so far, which is not a lot," said Ellen Hanak, a senior fellow at the nonpartisan Public Policy Institute of California and director of its Water Policy Institute.

Feinstein's bill was co-sponsored by Sen. Barbara Boxer, her fellow California Democrat, who has been one of the most vocal critics of the GOP approach. Feinstein said her bill would not alter the Endangered Species Act, a key objection that environmentalists had to previous legislation.

"That was one thing that I insisted upon because I got that message," Feinstein said.

Boxer, in a statement, said the bill "addresses California's devastating drought in a multi-faceted way."

She noted that this is one of three bills she is sponsoring, a nod to the depth of the crisis.

Environmentalists are expected to approach Feinstein's bill warily, in part because they fear efforts to compromise could go too far in undermining species protections. Doug Obegi, an attorney for the Natural Resources Defense Council, said he was still reading the 147-page measure, with an eye toward making sure that Feinstein upheld her pledge to leave the Endangered Species Act intact.

"It looks like it is a compromise that does borrow some ideas" from both the Republican bill and a Democratic House bill sponsored by Rep. Jared Huffman of San Rafael, Obegi said.

Among the GOP provisions: more money for above-ground storage, programs to eliminate fish that prey on endangered Delta smelt, and increased fish monitoring near water pumps, with the aim of increasing pumping levels.

Among the Democratic provisions: more money for efficiency, groundwater and recycling projects.

Even if environmentalists throw Feinstein their support, they may be quick to withdraw it if her bill is used as a starting point for further compromise.

"It's hard to see the bill getting better from an environmental perspective through the current Congress," Obegi said.

Peter Gleick, president of the Pacific Institute, an Oakland environmental think tank, said it was hard to say what form of drought relief would ultimately find approval.

"It remains to be seen what could possibly come out of the process that would be acceptable to both the Senate and the House and the president," Gleick said.

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## Drought now Californians' top concern, poll finds

LA Times | July 29, 2015 | Monte Morin

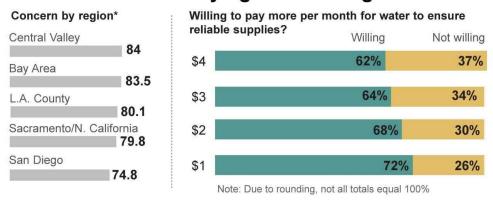
Concern over California's drought is "extremely high and intensifying," as a majority of state residents now believe global warming has contributed to the crisis, according to polling data released this week..

As residents struggle to meet mandated cuts in urban water use and state agriculture braces for up to \$2.2 billion in losses this year, voter concern over the drought has now eclipsed worry over jobs, the economy and education, according to researchers.

As a result, poll sponsors say Californians are now more open than ever to long-term changes in the way the state manages its water resources and say they would willingly pay "a few more dollars a month" to improve state water infrastructure.

"The public wants more to be done to address this issue," said Lester Snow, executive director of the California Water Foundation. "They don't think this is temporary. ... They really see it as a long-term problem."

## Californians are worrying about drought



\*Poll respondents described their concern on a scale of zero to 100, with zero meaning "not concerned at all" and 100 meaning "extremely concerned." Source: Fairbank, Maslin, Maullin, Metz & Associates

@latimesgraphics

The nonprofit water foundation, which supports water sustainability programs, hired the bipartisan public opinion research firm Fairbank, Maslin, Maullin, Metz & Associates, or FM3, to conduct the poll. The researchers telephoned 1,000 randomly selected California voters and surveyed them between July 6 and July 13. The results were released Wednesday.

Among other findings, researchers said that 62% of poll subjects said they would be very willing or somewhat willing to pay \$4 more a month for water if the funds were used to improve water supply reliability. Such an increase, if applied to the entire state, would generate about a billion dollars, according to poll sponsors.

Voters were asked to rate their level of drought concern on a scale of zero to 100, where zero meant "not concerned at all" and 100 meant "extremely concerned." Half of the respondents rated their concern at 90 or higher, while 23% rated it at 100.

Another telephone survey of 1,702 adult California residents was conducted by the Public Policy Institute of California and released Wednesday night. That survey, conducted between July 12 and July 21, found that 62% of participants believed global warming has contributed to the state's current drought.

Whether climate change has played a role in the drought remains a matter of scientific debate. Some researchers attribute California's four-year dry period to natural variability, while others argue that rising temperatures have intensified dryness.

In the PPIC survey, opinions about the role of climate change in California's current crisis split sharply along political lines: 78% of Democrats said global warming has contributed to drought, while 62% of Republicans said it has not.

When researchers inquired about a list of other issues facing the state, voters repeatedly put drought at the top.

While 86% of respondents said they were either "very concerned" or "extremely concerned" about the drought, only 65% said the same about the quality of public education, and just 55% said the same for jobs and the economy, Snow said.

"This is probably the first time we've seen that kind of high margin for concern about the drought," he said.

Since Gov. Jerry Brown imposed a mandatory 25% reduction in urban water use on April 1, there has been friction between urban water users, agricultural users and environmentalists.

However, the water foundation poll suggested that these divisions were not as deep as they might appear. While 85% of voters said the drought's impact on the environment has been "extremely" or "very" serious, 81% said the same for the drought's impact on agriculture.

"That was encouraging," Snow said. "It helps to break down the finger-pointing."

The PPIC survey found that while 46% of respondents believed the mandated cuts in urban water use were appropriate, 64% of those surveyed did not know their district's target reduction rate. (Although the state seeks to cut urban water use by 25% overall, different areas have higher or lower goals based on their past conservation efforts.)

"Among those who say they do know, 52% say the target amount is right, 23% say it is not enough and 20% say it is too much," researchers wrote.

"Taken together, these survey results suggest that California voters are ready and willing to support major and permanent changes in how the sate manages water," researchers wrote. "Along with the finding that few voters are satisfied with the state's response to the drought, this indicates that legislators who support reform are likely to find that voters support their actions."

Researchers also noted slight variations in attitude among different regions of the state.

While 65% of respondents statewide said they believed California was facing a serious long-term water shortage that will continue to be a problem even after we have more rain and snow, 73% of voters in the Bay Area and 70% of voters in Southern California said this was the case.

Report shows that Palo Alto exceeds water saving target but lags behind neighboring cities SJ Mercury News | August 7, 2015 | Jacqueline Lee

The latest statewide water reduction reports show that Palo Alto exceeded its conservation goal in June, but its residents still individually used more water than those of immediately surrounding cities.

Palo Alto used 31 percent less water than in June 2013, according to the reports.

June was the first month the city had to comply with a state mandate to reduce waster use by at least 24 percent through February.

A Palo Alto resident uses on average 81 gallons daily compared to 70 gallons by Menlo Park residents, 65 gallons by Mountain View residents and 45 gallons by East Palo Alto residents.

Still, Palo Alto's per capita use is lower than the state average of 97 gallons.

And the Bay Area Water Supply & Conservation Agency, which comprises 26 entities including Palo Alto, has some of the lowest per capita usage in the state, said chief executive officer Nicole Sandkulla.

The Los Altos area, through the California Water Service Company, has a reduction goal of 32 percent and a per capita residential use of 119 gallons per day.

Water resource authorities caution against comparing cities' water reduction efforts solely on per capita usage, because a variety of factors need to be considered to make fair comparisons.

These factors include climate, socioeconomic measures such as property sizes and income, water prices, population density and population growth.

Overall, areas that historically use a lot of water have to cut back more than those that consume less.

Sandkulla said that development and lifestyle patterns also play a role.

"For example, a community on the coast that has cooler weather will typically have less irrigation than in the East Bay, where they will irrigate more because of the weather," Sandkulla said. "East Palo Alto, where the homes are smaller and typically have more people per household, will use less water. Redwood City, Woodside, where there are larger homes on larger lots and tend to have fewer people per household, use more."

Though Palo Alto has a strong, commendable history of water conservation, residents must keep up their good work and look to save even more, as is true for all communities, Sandkulla said.

Saving as much water as possible during summer months is key to the Peninsula's annual reduction goals.

Last year, the Bay Area conservation agency sought to cut annual water use by 10 percent and hit 80 percent of that target through reductions made between June and October, Sandkulla said.

"It confirmed what we knew: To make a huge difference, we have to make our savings in the summer," Sandkulla said. "Just because we achieved 30-plus percent doesn't mean we can sit back and say we're done."

For many Palo Alto residents, using less water for landscaping likely will make the biggest difference. But the city warns against not watering trees altogether, because of the benefits they provide to the environment.

Meanwhile, the city is offering a variety of rebates to residents who take steps to save water, including \$2 per square feet of landscaping replaced by drought tolerant plants.

The city also recently hired a part-time water waste coordinator and is searching for another one to spot people wasting water and respond to reports of water use violations.

As of July 31, the city received more than 370 reports of water waste, according to Jordan Cowman, a spokesman for the city's Utilities Department. Most of the reports involved people watering at the wrong time.

Lawn watering is limited to twice a week and no irrigation is allowed between 10 a.m. and 6 p.m. except by hand or with drip irrigation and soaker hoses, according to the latest city restrictions.

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What: The city is holding a forum to share data about current water supply conditions

and water use, state and city water use restrictions, and conservation tips.

When: 7 to 9 p.m. Aug. 12

Where: Mitchell Park Community Center, in the El Palo Alto Room West.

## California Ahead of Hefty Water Cutback Requirement Despite Record Heat in June AccuWeather.com | August 6, 2015 | Kevin Byrne

Since California Gov. Jerry Brown issued an executive order on April 1 requiring a mandatory 25 percent reduction in statewide water use, the state has made significant progress with its conservation efforts.

The State Water Resources Control Board announced on July 30 that water use for the month of June decreased by 27.3 percent, surpassing the governor's mandate. While a bit lower than May's conservation number of 28.9 percent, June's decrease in water use came during the hottest June on record for the state.

Brown ordered the state's first-ever mandatory water-use restrictions for cities and towns after the California Department of Water Resources (DWR) reported that the state's snowpack was at historically low levels.

Felicia Marcus, chairwoman of the State Water Board, said the data released by the organization shows Californians understand the severity of the drought situation.

"We didn't know if the positive showing in May was due in part to cooler temperatures," Marcus said in a statement. "This report shows that residents knew they had to keep conserving even during the summer heat and they kept the sprinklers off more than they would in a normal year. That's the right attitude as we head into August and September heat--in the drought of the century with no certain end date."

The June water savings put the state on track to meet the goal of 1.2 million acre-feet of water saved by February 2016. The 59.4 billion gallons saved during the month is six times more compared to June 2014 (9.6 billion gallons), another indication of how agencies and residents are following the mandatory requirements.

Prior to the issuance of the executive order, Californians in cities and towns reduced their water consumption by only 2.8 percent in February and 3.6 percent in March.

While there are indications that this winter will bring a strong El Niño that could deliver much-needed relief, it will likely take more than one strong El Niño winter to bust the drought as the rain deficits are too large, AccuWeather Senior Meteorologist Bernie Rayno previously stated.

Currently, the U.S. Drought Monitor reports that 46 percent of the state is experiencing exceptional drought conditions, with 71 percent between extreme and exceptional.

Marcus told the Los Angeles Times that she was worried that residents may be less inclined to conserve water ahead of the potentially strong El Niño.

"It's not that I hate El Niño, I hate El Niño hype," Marcus said. "If it happens, we'll celebrate, but we can't count on it."

The State Water Board said that of the 405 state water suppliers reporting, 265 met or were within 1 percent of their conservation standard. Sixteen suppliers were more than 15 percent away from their standard and will need to meet with the board to provide information about their existing conservation programs.

The state also announced the launch of a new website that allows California residents to report water waste and suspected leaks. The website, SaveWater.Ca.Gov, allows users to report and send pictures anonymously to water suppliers through mobile devices and their computers.

Incidents of reported water waste increased in June with 43,942 complaints statewide from 371 suppliers, compared to 28,793 complaints by 353 suppliers in May. As a result, 9,582 penalties were issued compared to 1,928 in May.

"Everyone needs to save water, and this is one effective way alert residents can help everyone - and every community - save water during this historic drought," Marcus said. "Every drop saved - and every suspected leak or water waste reported and corrected - will help stretch the state's limited water supply, because we don't know if next year will be a fifth year of drought."

## San Jose launches program to send water usage reports to 21,000 homes

San Jose Mercury News | August 5, 2015 | Ramona Giwargis

SAN JOSE -- Homeowners often compare themselves with their neighbors: Who has the better lawn? Who has the bigger backyard?

But if San Jose residents knew they were using more water than their neighbors during California's crippling drought, would that make them pinch the hose a bit tighter?

That's the idea behind a new effort San Jose leaders announced Wednesday. San Jose is the latest Bay Area city to partner with WaterSmart Software, a program that monitors water usage and sends residents a report every other month comparing their consumption to homes of a similar size.

The software also allows residents to view their water consumption levels from 2013 on a mobile app and access personalized water-saving tips and leak notifications.

The Great Oaks Water Company, which serves part of San Jose from east of Snell Road to south of Monterey Road, has used the software since February for about 10,000 customers -- half of its service area. But the partnership announced Tuesday will expand the program to 21,000 new homes under the city's municipal water system.

San Jose will pay \$68,000 to launch the WaterSmart program and the Santa Clara Valley Water District will put in \$66,000. The technology will be rolled out beginning in September for a year-and-a-half.

The idea of comparing water usage isn't new and the positive "peer pressure" it creates has helped reduce consumption in cities such as Morgan Hill, Palo Alto and Mountain View.

Tim Guster, vice president and general counsel for Great Oaks Water Company, said WaterSmart helped the company meet its water reduction target of 30 percent since May. Guster said Greak Oaks now wants to expand the program to all its customers.

"It's been incredibly useful for us," Guster said. "Our customers are learning more about how they use water than ever before and that knowledge helps them decide where to cut back on water use."

Albert Beltran, a south San Jose resident, said having the WaterSmart system at his home has given him ideas on how to save water while raising two young children.

"It makes me feel like I'm doing my part in the drought while saving money," said Beltran, 38. "It's allowed us to be more conscious instead of watering indiscriminately."

WaterSmart, a San Francisco-based company, has only been around four years but already secured partnerships with about 40 other cities in seven states. CEO Robin Gilthorpe credits the company's success to letting customers see water usage in simple terms.

"They need to know how they're doing in terms they can understand. We tell people in gallons per day," Gilthorpe said.

Since most San Jose residents don't have smart meters, Mayor Sam Liccardo said the WaterSmart technology is critical in helping people grasp how much water they really use. "It enables a resident to understand that even though their shower is two minutes shorter every morning, they're still not saving enough water because their lawn is soaking up water six days a week," Liccardo said. "Those are the kinds of things that metrics enable residents to more clearly see."

And the comparison approach pushes residents to reduce usage by 5 percent on average, water district officials said.

"In the absence of this information, you're ignorant to the fact that you're using more than other homes the size of yours," said Marty Grimes, spokesman for the Santa Clara Valley Water District. "If you see you're not saving as much as other folks, there's natural motivation to adopt the social norm of saving water."

The San Jose Municipal Water System and Great Oaks Water Company each supply water to about 10 percent of the city. The rest is covered by the San Jose Water Company. WaterSmart officials say they're in discussions with San Jose Water Company to join the program and city officials are hoping it's successful enough to expand citywide.

"I think we have to see how it works," said Vice Mayor Rose Herrera said. "There are goals that have been touted by the company of 5 percent savings. I want to see if that can be achieved."

San Jose has declared an aggressive goal of reducing water usage by 30 percent relative to 2013, more than the 25 percent mandated by the governor. Though the city met its reduction target in May and June, Liccardo said it didn't in the previous months.

But San Jose is also launching other initiatives to save water during the drought, including recycling groundwater and a program that puts at-risk teens to work tearing out thirsty lawns and replacing them with drought-tolerant landscaping.

## Free drought gear offered to Palo Alto residents

Water District distributes shower buckets, lawn signs to promote conservation Palo Alto Weekly | August 5, 2015 | Gennady Sheyner

Palo Alto residents had a chance to pick up free shower buckets, hose nozzles and lawn signs promoting water conservation Wednesday as part of an effort by the Santa Clara Valley Water District to encourage water saving during a time of drought.

The gear, which also includes moisture meters, faucet aerators, low-flow shower heads and shower timers, was distributed at the Mitchell Park Library until 2:30 p.m., according to water district officials. Residents were also able to pick up "Brown is the New Green" and "We're Fighting the Drought – Inside Out" signs at the library early Wednesday.

Though the Palo Alto event concluded at 2:30 p.m. residents who wish to pick up drought gear may still do so at the water district's headquarters, 5700 Almaden Expressway, San Jose, during normal business hours. Residents must show proof that they are Santa Clara County residents. They can also pre-order lawn signs and other items at valleywater.org/droughtgear.

The distribution of equipment is part of the county's effort to meet the 25 percent water reduction target set by Gov. Jerry Brown in response to California's severe drought, which is now in its fourth year. Palo Alto, which draws most of its water not from the district but from the San Francisco Public Utilities Commission, is required to cut back its water use by 24 percent from 2013 levels.

So far, the city appears to be close to the target. According to the Utilities Department, the city's water consumption was 24.3 percent lower last month than it was in July 2013. In recent months, the city has added new rebates and water-efficiency programs, imposed restrictions on irrigation and banned the use of potable water in construction when non-potable water is available.

The city is also exploring increasing its use of recycled water for irrigation. The Utilities Advisory Commission will discuss tonight a proposal to use non-potable water for irrigation at the Stanford Research Park. The commission is also scheduled to receive its regular update about the drought and its impact on the city's hydroelectric supply.

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## In California, Even Firefighters Conserve Water

Persistent drought forces crews to get creative, using more dirt and retardant on wildfires Wall Street Journal | August 4, 2015 | Tamara Audi

LOS ANGELES—Wildfires scorching California this summer have already cost one life, 24 homes and millions of dollars. They are also consuming another precious resource: water.

An entrenched drought, now in its fifth year, has dulled huge swaths of the Golden State, helping spur 21 blazes statewide. It is also creating new challenges to firefighters, who must try to conserve water while dousing flames.

State water and fire officials stressed there is no danger of running out of water, but said they are being more careful to account for the impact of the drought.

Fire officials called for thousands of evacuations as numerous homes remained threatened by Northern California wildfires Monday. More than 9,000 firefighters battled 21 major fires in the state, officials said. Photo: AP

In some cases, that means sending air tankers farther to a deeper water source, using dirt or flame retardants instead of water, or doing more controlled burns, fire officials said.

Property owners who once took cash reimbursements to let fire crews tap water from their lands are now asking officials to replenish their water instead.

"People are beginning now to think that water is more valuable than money," said Janet Upton, a deputy director for the California Department of Forestry and Fire Protection, known as CalFire. "It just shows how precious the resource is."

CalFire officials are working with water managers to identify where water is still available—and where it isn't.

"Just because we've used Farmer Johnson's duck pond five years ago, we may not be able to do that today," Ms. Upton said.

On Friday, California Gov. Jerry Brown declared a state of emergency and said historic drought and hot weather "turned much of the state into a tinderbox."

The drought is slowing firefighting response in some places, as lower water levels have made it impossible in some instances for helicopters to siphon water from lakes and ponds.

"Many traditional water sources have dried up or are too shallow," said Mark Ghilarducci, director of the Governor's Office of Emergency Services. Sending aircraft farther "slows the process down a little. We try to fill the gaps with fire retardant."

Officials have been surveying water sources for months and sending out field observers as the drought changed the water landscape, Mr. Ghilarducci said.

Fire officials said they also use reservoirs when necessary. A spokesman for the California Department of Water Resources said the state doesn't track water use for firefighting, but added the use of reservoir water is "relatively negligible."

Wildfires are raging across the West. U.S. Forest Service officials said 14,800 firefighters from the agency were battling 26 large, uncontained fires in eight states.

Fire officials in the West said what used to be a season has turned into a year-round battle. Nearly 4,000 acres of Montana's Glacier National Park burned; by Monday that fire was mostly contained, officials said.

David Ruhl, a U.S. Forest Service firefighter, died last week at a fire in Northern California's Modoc National Forest, near the Oregon border. His death is under investigation.

Lightning strikes sprouted new fires across California. By Monday, more than 9,000 firefighters from state, local and federal agencies were battling 21 blazes in the state, primarily in the northern part.

The largest blaze, the Rocky Fire, is burning 100 miles north of San Francisco and flared over the weekend to 60,000 acres. It has destroyed 24 homes and is threatening 6,000 more, with 13,000 residents evacuated.

Cooler temperatures Monday gave firefighters an upper hand. "We have some optimism going today," said Ron Oatman, a state fire spokesman in Lake County, near the Rocky Fire. But Mr. Oatman said that over the past few days the fire has tended to roar to life in the late afternoon and evening.

"It's really scary to see the smoke right out your window. Ash was falling on our car," said Nahani Bohan, who lives in Kelseyville, near the evacuation zone in Northern California. Her husband, Drew, who operates a bulldozer for CalFire, has been away from home for 13 days working on blazes across the state, she said.

The rural region is steep, forested and filled with ranches and wineries.

Walt Campbell helped his son evacuate his Jerusalem Valley home, along with all his animals: a horse, goats, lambs, chicken and dogs.

Fire burned about 250 acres of a 4,300-acre winery and ranch where the elder Mr. Campbell works, Six Sigma. But shifting winds blew flames away from the ranch.

The property's owner, Kaj Ahlmann, said firefighters created a dirt strip 10 miles long to act as a fire break around his property. He has small ponds on the property, but so far, firefighters haven't asked to tap them, he added.

Residents said they are grateful firefighting planes and helicopters can dip into nearby Clear Lake.

"It's close and it's 32 miles long if you drive around," said Mr. Ahlmann. "That's a pretty good pot of water."

## How to report water waste with a smartphone

SF Chronicle | July 31, 2015 | By Kurtis Alexander

Seen somebody wasting water? Don't know who to call?

The state of California can help.

State water officials this week launched the drought-inspired website Save Our Water (www.savewater.ca.gov), which allows anyone in California to report water abuse with a simple touch of their smartphone or other digital device.

While many local water departments already have apps or Web pages for customers to rat out the neighbor who waters his lawn every day or the guy who washes his car too much, the state's new site welcomes tips from anywhere in California.

In other words, you don't have to know who's in charge to be a drought hero.

The state site takes the anonymous report as well as any photos of the wasted water you include and sends them to the local water agency where the alleged abuse occurred.

While state officials are forcing communities to cut back on water, it's up to local officials to devise the rules for conservation and enforce them.

Local agencies have the ability to fine water scofflaws \$500 — and even more in some cases.

"Since the state water board passed emergency water-conservation regulations in July 2014, hundreds of state residents have e-mailed us and called, asking what they can do to report suspected water waste," said Felicia Marcus, chair of the State Water Resources Control Board.

"This tool is a valuable step in the right direction for water suppliers to find out about suspected leaks or overwatering in their communities."

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## Californians cut water usage by 27% in June, but officials remain wary

LA Times | July 30, 2015 | Monte Morin and Rosanna Xia

Despite record heat, drought-conscious Californians managed to slash urban water use by 27% in June and demonstrated once again that they were on track to meet Gov. Jerry Brown's historic 25% conservation order, state water officials said Thursday.

Data released by the State Water Resources Control Board showed that Californians had reduced their water consumption by 59 billion gallons compared with June 2013, indicating what officials called a fundamental change in water-use habits.

At the same time, 16 water suppliers missed their conservation targets by 15 or more percentage points and will be contacted by water officials for an explanation, as well as corrective actions, within the next two weeks, officials said.

As of yet, no water suppliers have been fined.

Although the board's chairwoman, Felicia Marcus, commended Californians on their conservation, she said she worried that residents might ease up on their efforts in anticipation of a potentially drenching El Niño season.

"It's not that I hate El Niño, I hate El Niño hype," Marcus said. "It's Russian roulette.... If it happens we'll celebrate, but we can't count on it."

June was the first month for which urban water districts were required to meet mandated reduction targets, which vary among water agencies depending on past conservation efforts. Suppliers with a history of heavy use have been ordered to slash consumption by as much as 36%, while other districts must reduce use by as little as 4%.

Suppliers that repeatedly fail to meet their savings targets could face fines of as much as \$10,000 a day.

"We are taking very serious the scofflaws," Marcus said. "We will be in their face.... We are deadly serious about this."

The June savings figures represent a slight decline from May, when water usage dropped by 29%.

Nearly 40% of the state's 411 urban water suppliers reduced consumption by 30% or more, according to Max Gomberg, the water board's climate and conservation manager.

Among the water suppliers with the largest savings were the Antelope Valley Waterworks District, with a 42% reduction; the San Gabriel Valley Water Co., with a 35% reduction; and the Yorba Linda Water District, with a 38% reduction.

The Los Angeles Department of Water and Power missed its 16% reduction target by half a percentage point, according to the water board's data.

The 16 worst-performing water districts included the city of Livingston, which missed its target by almost 29 percentage points; El Monte, which missed its target by more than 22 percentage points; and the Coachella Valley Water District, which missed its target by 15 percentage points.

"It's a small group, but they're significantly off the mark and we need to get them back on track," Gomberg said. "We are going to be meeting with them, and our intent is to develop enforceable orders."

El Monte Mayor Andre Quintero said the city hopes to hire a consultant who can help its water management, but the City Council has been slow to acknowledge the problem. Twice, he said, the council has failed to pass a measure that would limit lawn irrigation to twice a week.

"It's absolutely frustrating," Quintero said. "I don't know if my colleagues fully understand how serious the issue is.... This is not something you can delay or just hope that El Niño will solve."

Other districts questioned the accuracy of the data.

At the Fallbrook Public Utility District in San Diego County, which according to state data missed its target by 27 percentage points, officials said some water used for agriculture may have been mistakenly calculated as residential use.

"It's very confusing, it's very frustrating," district spokeswoman Noelle Denke said. "Fallbrook is a very conscientious community. We're very dedicated and very conscious of the drought."

An additional 71 water suppliers missed their savings target by 5 to 15 percentage points, officials said.

Experts said the new data are promising, but there is still room for improvement.

"We've known for quite some time that this is a serious issue that everybody needs to do their part to conserve," said Sara Aminzadeh, executive director of California Coastkeeper Alliance. And to see there are people who "are still using two, three, four times the amount that an average Californian uses, I'm seeing real disconnect there."

Despite calls for conservation, some water agencies remained "openly indifferent or apathetic to the drought regulations and to the drought generally," she said.

On average, half of all urban water use occurs outdoors. Since April, when Brown ordered the reductions, officials have urged residents to take shorter showers, cut down on car washing and allow their lawns to turn "golden brown."

Although Marcus said it was clear many Californians were heeding the call, she said it was also important that people try to preserve trees.

Marcus said that trees help reduce heat by providing shade and limiting the so-called urban heat island effect and noted that during Australia's severe drought, the city of Melbourne had made it a point to double its number of trees.

"Trees are important," Marcus said. "We don't need to lose them if we act early and water them."

## California drought conservation: Hall of Fame and Shame

SF Gate | July 30, 2015 | Associated Press

SACRAMENTO, Calif. (AP) — California cities have mostly succeeded in the first month of mandatory conservation during the drought, according to June water use data released Thursday. The State Water Resources Control Board gave communities nine months to hit water use reduction targets as high as 36 percent compared to 2013 levels.

The self-reported figures below show which large agencies serving more than 40,000 people fell the most behind and went above and beyond their targets.

#### HALL OF SHAME

These large agencies were the furthest behind from their conservation targets: Agency, County, Conservation Mandate, June Savings, Difference

Rancho California Water District, Riverside, 36%, 14.4%, -21.6%

City of Hanford, Kings, 28%, 10%, -18%

California Water Service Company Dominguez, Los Angeles, 16%. +1%, -17.0%

Coachella Valley Water District, Riverside, 36%, 21%, -15%

Western Municipal Water District of Riverside, Riverside, 32%, 17%, -15%

Yucaipa Valley Water District, San Bernardino, 36%, 22%, -14%

Elsinore Valley Municipal Water District, Riverside, 28%, 14%, -14%

Eastern Municipal Water District, Riverside, 28%, 15%, -13%

City of Turlock, Stanislaus, 32%, 19%, -13%

City of Rialto, San Bernardino, 28%, 15.6%, -12.4%

#### HALL OF FAME

These large agencies exceeded their conservation targets the most: Agency, County, Conservation Mandate, June Savings, Difference

City of Redwood City, San Mateo 8%, 39%, +31%

Dublin San Ramon Services District, Contra Costa, 12%, 42.5%, +30.5%

City of Santa Barbara, Santa Barbara, 12%, 41%, +29%

California Water Service Company Livermore, Alameda, 24%, 49%, +25%

City of San Buenaventura, Ventura, 16%, 41%, +25%

City of Santa Cruz, Santa Cruz, 8%, 32%, +24%

City of Pleasanton, Alameda, 24%, 48%, +24%

Calaveras County Water District, Calaveras, 16%, 40%, +24%

City of Hayward, Alameda, 8%, 31%, +23%

City of San Bruno, San Mateo, 8%, 29%, +21%

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Source: Associated Press analysis of data published by the State Water Resources Control Board.

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## Who's Saving Water in California and Who Isn't

KQED Science | July 30, 2015 | Lauren Sommer

The majority of California's water districts have stepped up to meet strict new water conservation rules, according to data released by the state on Thursday.

Almost 40 percent of urban water suppliers cut their water use dramatically, by 30 percent or more.

About a third of water districts, 140 in all, fell short, mostly in Southern California.

Under the rules, districts must save between 4 and 36 percent of their water use, compared to what they used during the same month in 2013. The State Water Resources Control Board set the goals based on the per capita water use in each district.

State officials applauded the water savings in June, which was the first month the mandatory rules took effect. Overall, Californians saved 27.3 percent, exceeding the 25 percent goal called for by Governor Jerry Brown.

"This is significant, especially in light of the fact that June was really hot," said Felicia Marcus, chair of the State Water Resources Control Board. "June numbers tell a story of conscious conservation and that's what we need."

## **Bay Area Results**

Many Northern California water districts passed with flying colors. Menlo Park, Redwood City and the Dublin-San Ramon Services District all saved 31 percent more water than required.

The Peninsula's Westborough Water District was one of the few Bay Area agencies that fell far short of its conservation goal, failing to produce any savings in June.

To meet the conservation mandates, most Bay Area water districts have limited watering to two days per week, banned watering during peak daylight hours and have banned sprinkler runoff and using water to clean sidewalks and driveways.

"I've never seen such immediate action happen," said Stephanie Nevins, a water conservation supervisor at Alameda County Water District in the East Bay. "People are running to apply and participate in our lawn removal program."

Outdoor water accounts for half of all residential use, even more in hotter areas.

Outdoor water accounts for half of all residential use, even more in hotter areas. (Lauren Sommer/KQED)

Water agencies in San Jose, Dublin and Morgan Hill have banned filling new swimming pools with potable water. The city of San Jose prohibits washing cars at home with potable water. Residents must use gray water or go to commercial car washes.

"Water agencies all around California are doing a pretty big lift," said Tim Quinn of the Association of California Water Agencies. "There's a lot involved in educating the public and getting the information to them. The people of California have gotten it and they're taking those actions and saving a lot of water."

State officials will be meeting with the worst-performing providers to review their drought conservation plans. The board can issue fines of up to \$500 a day for districts that fail to comply and ultimately, can levy more stringent fees of up to \$10,000 a day if districts flagrantly ignore the rules.

## **Downside to Conservation**

Saving water also means selling less water to customers, so many water districts are now grappling with revenue shortfalls. Water districts generally have inflexible costs, like paying for their water supply or infrastructure.

"When folks drastically reduce their water use, we still have those fixed charges, year-round," says Nevins. "Doesn't matter if it's a drought year or a non-drought year. There's a certain amount of money that we have to spend to supply our service area with high-quality water."

Some are imposing surcharges on customers to make up for it. The East Bay Municipal Utility District imposed a 25 percent surcharge on its customers on July 1 to make up the cost of buying extra water and to pay for conservation and enforcement efforts.

## **Keeping Up Conservation**

State officials warned that with several more dry months ahead this summer, water districts would have to keep up their conservation efforts.

"It's not just that we're in a drought," said Marcus. "We're in the drought of our lives."

Marcus also expressed concern that there's been too much focus on El Niño, the weather pattern that forecasters say could deliver heavy rainfall this winter. "It sends too much of a mixed message on conservation," she said.

"Even a strong El Niño does not guarantee the kind of rain and snow we need to end or let alone put a dent in the drought," she said. "We need rain and particularly snow in Northern California, where the large reservoirs that people rely on for a big chunk of water supply are."

## Water managers meet over recycling strategy

Formal agreement not yet in place Half Moon Bay Review | August 5, 2015 | Clay Lambert

Coastside water managers say they are making progress toward the use of recycled water, and hope ongoing committee meetings will eventually open the taps to a new source of water.

On Tuesday, a committee composed of officials from Coastside County Water District, the Sewer Authority Mid-Coastside, which includes representatives from the city of Half Moon Bay, and the Montara Water and Sanitary District met for the first time after Review print deadlines to discuss the project. A week earlier CCWD directors authorized spending \$50,000 on an engineering report to evaluate water quality requirements, distribution options and other technical considerations.

"I think we are at a place where we can make real progress on this," said CCWD General Manager David Dickson.

As envisioned on the Coastside, recycled water would involve treating wastewater to a level that allows it to be used for irrigation. It would not be used in the drinking water supply. The plans hinge on finding a buyer for the water, and Ocean Colony Partners' Half Moon Bay Golf Links — a big user of CCWD's drinkable water — is considered the most likely consumer of local recycled water.

The idea has been on the backburner for years despite general agreement that it makes sense in a region struggling with years of drought conditions. State and federal authorities have made the idea further palatable by offering grants for such projects.

The key to breaking a deadlock on the issue came in the form of "guiding principles" that were established in January. Both local water agencies and SAM signed off on those principles in a deal brokered by former Half Moon Bay City Councilman Allan Alifano. Under the agreement, SAM would be responsible for treatment and disposal of wastewater and the development of recycled water that would be of sufficient quality for any customers of the two water providers. For their part, CCWD and MWSD would be responsible for transmission and distribution to those customers.

SAM has set an aggressive timeline to construct its facility. Managers there hope to build a facility that could cost up to \$4.6 million by March 2016.

While that is an admirable goal, some policy makers think that is overly ambitious.

"March '16 is a completely unrealistic date," said Half Moon Bay City Councilman Rick Kowalczyk, who represents the city on the SAM board and on the SAM subcommittee studying recycled water. "That will never happen in this permitting environment." He said it might be

possible to build the plant but that it must be aligned with distribution channels and an eventual purchaser as well.

Kowalczyk emphasized that all parties are aligned and working toward a recycled water project but that a formal agreement hasn't been reached.

"My goal is that (Tuesday's meeting) is the first step toward a formal memorandum of understanding," he said.

The fact that they are working after years of inaction is encouraging to those who think recycled water is part of a larger response to the drought.

"There is no better time than right now to get a recycled water project going," Dickson said.

# Workshops look at water bond storage spending

AgAlert | August 5, 2015 | Kate Campbell

Nine months after California voters passed the Proposition 1 water bond, the California Water Commission is conducting public workshops to discuss how bond money for water storage projects might be spent. The \$7.12 billion bond measure includes \$2.7 billion set aside for the public benefit of water storage projects.

At a workshop in Davis last week, commission officials indicated it will be several years before regulations and programs are finalized, and storage project proposals can be submitted.

Under the bond's provisions, water projects that meet stringent "public benefit" criteria—such as bolstering ecosystems, bettering water quality, controlling floods and improving recreation—may begin applying for available bond funding as early as Jan. 1, 2017.

The application process for getting public benefit projects approved and funded from the bond will require a "variable" number of years beyond that, commission representatives said.

A questioner who attended the Davis workshop asked: "Does that mean five or more years from now to get a project approved, and many years beyond that to complete it?" The answer: "Yes."

Proposition 1—the Water Quality, Supply, and Infrastructure Improvement Act of 2014—requires development and adoption of project solicitation and evaluation guidelines, which will be vetted through a series of public comment meetings before being finalized.

The next public workshop will be held Aug. 10, from 6 to 8 p.m., at the Bakersfield Senior Center, 530 4th St. in Bakersfield.

"It's important for Farm Bureau members to remind the Water Commission about the need for significant new water storage projects," California Farm Bureau Federation Administrator Rich Matteis said. "The workshops provide an opportunity for Farm Bureau members to ask questions and provide advice about potential projects that would benefit from bond funding."

Marin County rancher Sam Dolcini, who attended a separate workshop in Napa last week, said the meetings offer "a huge opportunity for agriculture's voice to be heard."

Dolcini said much of the discussion at the workshop focused on "process and procedures," but noted that the commission remains at the beginning of its storage-approval procedure.

"At this point in the commission's program development, it's important to participate," said Dolcini, who is president of the Marin County Farm Bureau, adding that he felt it is "important for California agriculture to be present."

Dolcini said he found it interesting that when officials were asked at the Napa meeting about the goal for how much water a \$2.7 billion investment might provide, there wasn't a specific answer.

"I think it's a great question: Do we have a water goal for these project investments?" Dolcini said. "Look, we've got \$2.7 billion to invest and not a goal in sight. That's one reason why farmers and ranchers need to be at the table as the project allocation process begins."

Proposition 1 requires the commission to rank projects based on the expected return for public investment as measured by the magnitude of public benefits provided by the projects, but officials said that doesn't translate into a certain number of acre-feet of water. The commission must also develop and adopt methods for quantifying and managing public benefits.

As required by the bond measure, the commission must consider a wide range of proposed projects that may be eligible for funding, including:

- •Surface storage projects identified in the Cal-Fed Bay-Delta Program Record of Decision;
- •Groundwater storage projects;
- •Groundwater contamination prevention or remediation projects with water storage benefits;
- •Conjunctive use projects;
- •Reservoir re-operation projects;
- •Local surface storage projects that improve the operation of water systems in the state and provide public benefits;
- •Regional surface storage projects that improve the operation of water systems.

The commission said in a meeting handout that the maximum state cost-share for public benefits of a project is 50 percent and to qualify for funding, ecosystem benefits must be 50 percent of the funded public benefits. The remaining money for storage projects must come from local or other sources.

Dolcini said when asked about specific project proposals at the Napa meeting, officials said they've heard that as many as 140 proposals could be put forward. However, proposals will not be considered before 2017.

Sonoma County farmer Tito Sasaki, who also attended the Napa meeting, said most of the discussion at the workshop focused on the potential environmental benefits of projects but that to him, the most important thing about the bond funding is to improve the state's water reliability and delivery system.

"It's going to be a long process, and farmers and ranchers need to participate," he said.

#### Locals take a look at future of California water

Davis Enterprise | August 1, 2015 | Felicia Alvarez

Representatives from the California Water Commission came to Davis on Thursday night, opening their ears to the public as they forward their efforts to allocate some \$2.7 billion to transform the future of water storage in California.

This task comes in the form of the Water Storage Investment Program, just one part of the \$7.5 billion water bond passed by voters last fall through Proposition 1, the Water Quality, Supply and Infrastructure Improvement Act, co-authored by state Sen. Lois Wolk, D-Davis.

The funding at hand will allocated to support water storage and restoration projects across the state, with particular focus on the Sacramento-San Joaquin Delta. In the past some larger projects have had a harder time finding funding; the water storage program will help large and smaller, regional projects alike, Wolk said.

"It's about reducing our reliance on delta water, for local and regional self-sufficiency," Wolk said. "Every drop of water needs to be used."

More than 30 concerned residents of Davis and surrounding areas came to the hearing at the Veterans' Memorial Center to learn more and to voice their own local water concerns to the commission. The meeting was one of three public outreach meetings, including Napa on July 27 and Bakersfield on Aug. 10.

"When most people think water storage, they think of reservoirs. ... We're thinking about whole watersheds," said Armando Quintero, one of the nine members of the commission. Hailing from San Rafael, Quintero has a career-long history in environmental education, holding positions with the U.S. National Park Service and UC Merced's Sierra Nevada Research Institute.

The public forum was conducted by The Center for Collaborative Policy — a policy group that operates out of Sacramento State — alongside representatives from the Department of Fish and Wildlife and the State Water Control Board. Quintero was the only member of the California Water Commission present.

"Looking at regional areas, what resources do we have to create a resilient portfolio for water?" Quintero asked. After watching millions of gallons water get processed through wastewater treatment plants and then discharged instead of captured, Quintero is ready for change.

Public benefit is at the forefront of all potential projects and includes ecosystem improvements, water quality improvements, flood control, emergency response and recreation.

The Department of Fish and Wildlife and the State Water Control Board's priorities are also thrown into the mix.

The department set six ecological priorities that it hopes the program achieves, including:

- Recovering endangered, threatened and at-risk native fish species;
- Restoring flows regimes to improve native habits;
- Enhancing recreational and commercial opportunities;
- Reducing the negative impacts of non-native species;
- Preventing impacts from in-river structures; and
- Increasing the quantity and quality of riparian habitats.

Looking at water quality, the State Water Control Board wants to improve water temperature, dissolved oxygen, nutrient, mercury and salinity conditions as well as protect groundwater basins, tributary flows in the Sacramento-San Joaquin Delta and reduce water demand in the delta.

To tap into that \$2.7 billion in funding, however, a project has to cover some, but not all, of those priorities, as well as meet all of the application criteria.

From there, the commission will decide what projects will receive money. Although there's no monetary cap for how much can be allocated to a single project, no more than 50 percent of a project's cost can, a ceiling set by Proposition 1.

"It seems like they need to do more development before we can see what local projects could benefit," said Ken Loy, a Davis resident who attended the meeting. Nonetheless, Loy said he enjoyed the opportunity to comment on the process.

Regulations and guidelines that make up the funding framework are still being drafted. The guidelines will be complete by December, after which programs can begin applying for funding. Throughout 2017, groups can submit applications to the commission, with a tentative deadline set in November 2017.

"Some of the larger projects are looking at a 5-plus-year time frame," said Jennifer Marr, a representative from The Center for Collaborative Policy.

With current pressures on the water supply, some were left wondering why the commission won't take action sooner, rather than later.

"We wanted to give the community time to design a fair, equitable program and reach out to the public," Marr replied.

To get involved, the public can attend stakeholder and public meetings throughout the planning process. Dates and locations can be found at https://cwc.ca.gov/Pages/Meetings.aspx.

Additional information about the California Water Commission and the Water Storage Investment Program are at https://cwc.ca.gov/Pages/Home.aspx.

## It's not science fiction: Water tech can keep California golden

GreenBiz | July 31, 2015 | Scott Bryan and Peter Yolles

Water conservation software based on behavioral science and cloud computing. Agricultural irrigation technology using sensors to measure sap in grape vines. Satellites that measure plant water needs. Home greywater recycling systems. Water meters connected to the Internet. Solar-powered desalination.

These are some of the high-tech drought solutions featured at California's first water technology summit July 10 in Sacramento. This isn't science fiction. These and other new technology solutions are being used on the ground in California, generating new water supplies when the state needs them most.

California is a world leader in high technology. So it's natural that Silicon Valley entrepreneurs are turning their creative energies to developing new technology-driven solutions to help California meet the challenges posed by a devastating four-year drought.

California Gov. Jerry Brown deserves credit for convening this summit. His California Water Action Plan includes a broad framework for action to ensure that California responds to the drought and ensures a reliable long-term water supply. After all, the drought eventually will end, but with a growing population of 38 million residents, more than 9 million acres of irrigated land and the world's eighth largest economy, California must find new water supply solutions. These solutions are necessary to serve our residents, grow our economy and protect our environment

A review of Brown's Water Action Plan reveals many priorities that dramatically can benefit from innovation. The governor has established aggressive urban water conservation goals. He has called for advances in agricultural water measurement and efficiency, investments in water recycling and programs to ensure that communities have access to clean, safe drinking water. Technological advances can help in each area, delivering new, cost-effective solutions.

One way to understand what technology can do in the water sector is to review what technology has accomplished in the energy sector. In the past two decades, solar and wind power, LED lighting, more efficient appliances and other technological advancements dramatically have reshaped the California energy landscape. California is on track to generate 33 percent of its electricity from renewable sources by 2020. This transformation, which began during Brown's third term, has made our state the most energy efficient in the nation.

In addition to generating clean energy, technological innovation has created a new energy industry that employs 430,000 Californians. In our state, the clean-energy industry employs more workers than does Hollywood and more than the nation's coal industry.

Water technology offers similar potential benefits. New water technologies already are emerging, and the potential for more progress is vast. Leading municipal, industrial and

agricultural water users already are embracing cutting edge water tools. But California is a large and diverse state, leaving us with enormous opportunities to encourage broad adoption of existing water technologies and the development of the next generation of solutions.

By tapping into California's technological creativity, we can develop new ways to save water, to reuse it and to ensure that it is safe for human consumption. We also can help launch a new industry to employ Californians in locally based companies that are leaders in a growing global water technology sector, challenging Israel and Australia. New water solutions should be California's next technology export.

The Summit on Water Technology and the Drought (PDF) led to several clear conclusions. California has an opportunity to align its policies with the development and adoption of water technology, such as the next generation of water conservation and recycling goals. The state should recognize that California's water technology incentives lag far behind incentive programs in the energy field. We can accomplish far more with the state's budget and the water bond. Greenhouse gas reduction funds can support technology that saves energy and water. And the state can encourage water agencies to invest a modest percentage of revenues in new technologies.

In a difficult fourth year of drought, the summit ended with an optimistic sense of momentum. Brown recognized many years ago that energy technology innovations and investments would follow innovative energy policies. The water technology summit can begin that process in the water field.

These emerging innovations couldn't be more timely. In the past year, California has seen record low snowpack, declining water storage, collapsing salmon runs, land subsidence caused by groundwater overdraft and other clear signs that our rivers and aquifers are overtapped and that we need new answers.

A collaborative effort among the state, technology entrepreneurs, investors and water users can build a powerful new partnership to ensure that California fosters the water solutions it needs to keep our state golden.

### Fires followed by floods: California faces dramatic climate year with El Nino, drought

Unusual summer storm may be a preview of El Niño

LA Times | July 21, 2015 | By Rong-Gong Lin II, Javier Panzar, Joseph Serna

A swath of eastern California offered a dramatic view in recent days of the powerful climate forces buffeting the state.

On Friday, an out-of-control brush fire — fueled by four years of drought — destroyed 20 vehicles on Interstate 15 in the Cajon Pass. Hours later, the area was pounded by historic rainstorms that eventually washed out Interstate 10 here.

The heavy rain is the most concrete evidence yet of powerful El Niño conditions that scientists are becoming increasingly convinced will lead to a wet winter for Southern California.

This weekend's rains came from a former hurricane, Dolores. Experts say warm ocean water, influenced by El Niño, allowed the remnants of the unusually wet hurricane to go much farther north than such storms typically go.

They also see El Niño in other unusual weather events of recent months: A dusting of snow blanketed parts of the southern Sierra Nevada in early July, and the so-called Miracle May of rain and snow in the Rocky Mountains helped forestall water reductions from reservoirs that feed California, Nevada and Arizona.

These all appear to be preludes of what could come in winter — for better and worse.

"It's a sweet promising start," said Bill Patzert, climatologist for NASA's Jet Propulsion Laboratory in La Cañada Flintridge, but then added: "Except for all the damage it does.... Be careful for what you wish for. Great droughts usually end in great floods."

El Niño is a warming of the ocean along the equator west of Peru, which triggers changes in the atmosphere that can dramatically alter weather patterns across the world.

Although there is still some debate about how strong an effect this year's El Niño will have on California, flood control officials are beginning to plan for the worst.

Officials say they'll have tens of thousands of catch basins cleaned out to hold mud, rocks and other debris that might spill out from saturated hillsides.

In California, the last time a very strong El Niño arrived, the heavens opened up in an unrelenting series of storms in the winter of 1997-98. Those storms left 17 dead and caused more than half a billion dollars in damage. Rivers and flood-control channels flooded neighborhoods, homes slid off soggy hillsides and winds blew off roofs.

"Look at all the damage a couple of inches of rain caused in Southern California in the last couple of days. Can you imagine 30 inches?" Patzert asked.

The flash flooding was severe enough Sunday to collapse an eastbound 10 bridge in the low desert into a roaring wash. The freeway, which connects Palm Springs to Arizona, carries 27,000 vehicles per day.

The fast-moving water undercut the dirt bank supporting the bridge, leading to its failure. The adjacent westbound bridge did not collapse but its support columns were damaged when dirt underneath it was swept away, officials said. Both directions remained closed Monday.

Motorists were being directed on lengthy detours through narrow desert highways.

When the bridge collapsed Sunday afternoon, a pickup truck was swallowed up and the driver, Bryon Castor, was stranded inside for 45 minutes while the waters roiled below. Police and motorists tied rope to the truck to keep it from washing away before he was rescued.

Riverside County Supervisor John Benoit called the chaotic flood a "500-year event."

"This is the worst damage I've ever seen from rain," he said as he looked over the twisted metal rebar from the collapsed bridge. "You build for the 100-year event. But sometimes nature tells you, 'Hey, we are still in charge.' "

Bridges over two other washes had also been damaged, he said.

Caltrans spokesman Philip Havins said the plan is to run both directions of the freeway on the westbound bridge.

The severed link was already stranding motorists. One driver making the journey from Arizona to Redondo Beach in an electric car became marooned after exhausting the 270 miles of charge on his Tesla. He was unaware of the freeway closure and lengthy detour.

"It's my fault, not Tesla's fault," said the driver, Neil Pyne, as he waited Monday afternoon for a Tesla technician to bring him a new battery.

Many have been hoping for an El Niño winter, seeing it as a potential drought buster if it causes a subtropical jet stream to bring storms to the southern United States. But experts said even huge downpours may not significantly ease the water shortage.

Traffic in both directions of the major east-west highway has been stopped indefinitely while engineers assess the damage.

A bridge on Interstate 10 over Tex Wash between Coachella, Calif., and the Arizona border collapsed during Sunday's flash flood.

Some forecasts say El Niño will mostly affect Southern California, where much of the rain flows into storm drains and the ocean.

California gets much of its water from the north, through winter rain runoff and snow slowly melting through the spring and summer, which is collected in reservoirs and then distributed across the state.

Based on current observations, Patzert said he believes El Niño is only strong enough to affect Southern California. But Daniel Swain, a climate scientist at Stanford University, said he believes heavier precipitation will also hit Northern California, as it did in 1998.

Swain said current computer models forecast ocean temperatures in the Pacific to be actually hotter than they were in the 1997-98 El Niño.

"The warming that is currently suggested by the models would be unprecedented in the observed record," Swain said. "It's certainly a situation that we haven't seen before."

One concern is how warm the winter storms will be, if they materialize. If too-warm storms dump mostly rain instead of snow, California will be forced to flush out some of that precipitation to the ocean to ensure dams don't overflow.

The California Department of Water Resources is far less bullish on the El Niño forecast.

"We can't gain too much confidence," Jeanine Jones, the department's deputy drought manager, said. "We always need to be prepared for a possibility of a flood response. But particularly since we're in a fourth year of drought, we need to be prepared for the possibility of a fifth year of drought."

One thing is clear: A lot is riding on the skies in the coming months.

"What happens this winter is definitely going to be interesting," Swain said. "And it's not entirely clear whether California wins or loses."

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# Drought-Stricken California Farmers Look To Tap Urban Wastewater

NPR | July 20, 2015 | Lauren Sommer

Many California farmers are in a tight spot this summer, because their normal water supplies have dried up with the state's extreme drought. In the state's Central Valley, that's driving some farmers to get creative: They're looking at buying water from cities — not freshwater, but water that's already gone down the drain.

The parched conditions in the valley, the state's farming hub, have been crazy. Actually, "crazy wouldn't adequately describe what we're going through here," says Anthea Hansen, who runs the Del Puerto Water District in the Central Valley. "Having zero water available — we've been in survival and crisis mode for literally 24 months now," she says.

The evidence is right across the street from her office: a 350-acre farm field. "This land would typically be farmed in probably tomatoes," she says.

Instead, the field is empty. Like a quarter of the 45,000 acres in the district, it's fallowed because there's no water. And that's Hansen's problem. As head of the Central Valley water district, it's her job to find water for this farm and 150 others.

The normal supply from federal reservoirs has been cut off. There isn't much groundwater to pump. Hansen has been buying water on the open market, but prices have gone through the roof.

What her district needs, she says, is a reliable supply — something that's there, drought or no drought. So her district turned its sights toward the wastewater treatment plant in Modesto, Calif., just a stone's throw from some of the driest agricultural areas in the state.

Will Wong gives me a tour of the plant, a couple of hours east of San Francisco. The smell isn't too bad — "kind of an earthy smell," as Wong describes it. "It's not totally offensive."

Everything that goes down the drain in the city — from 240,000 people — ends up here. Sewage may not seem like an obvious water source, but, as Wong says: "Water is water. As long as it's wet, it's water and it's valuable."

And that water will be disinfected with ultraviolet light once new equipment is installed — part of a \$150 million upgrade to meet new water quality requirements. It won't be drinking-water quality, but according to state standards, it will be clean enough to use on crops.

Normally, the wastewater would be disposed of in a local river, as much as 14 million gallons a day. But Modesto had an idea: Maybe someone else would want to buy it.

"Del Puerto Water District raised their hand, as quickly as we brought the question up," Wong says.

The plan is to build a 6-mile, \$100 million pipeline to carry the wastewater to a canal that goes to local farms. Called the North Valley Regional Recycled Water Program, it would be the largest water recycling project of its kind in the state.

And it won't be cheap. Farmers would pay four to five times normal water prices, but growers like Jim Jasper are more than willing to pay.

"I like to be optimistic, but without something like this, the future for my son and grandson and family — we're into this third generation — I don't know if we can keep our business going," Jasper says.

The water would meet about one-third of the water district's "hardened" demand, or the minimal supply it can get by on.

And other agricultural areas are taking notice as they face their own drought shortfalls.

"There's absolutely more potential for recycled water use in California," says Heather Cooley of the Pacific Institute, a nonprofit water think tank based in Oakland. She says California could be using two to three times more recycled water.

But there are also potential problems. For one, keeping wastewater out of a river could impact the river itself.

"You need to understand where that water would have gone," she says. "Is it providing important environmental flows? Is it providing water to a downstream community?"

That's the case for Modesto. Farmers in a nearby water district are protesting the plan. They're worried it will reduce the flow of a local river.

Recycled wastewater projects are currently used in Monterey and Sonoma counties, where urban areas are close to farm fields. But in other parts of California's Central Valley, Cooley says, location is a problem. It's expensive to move wastewater long distances, and a lot of farms are just too far from big cities and all their wastewater.

"It's not the single silver bullet solution for agriculture. Agriculture is going to have to do a lot of things to adapt to a future of less water availability," she says.

In the Del Puerto Water District, farmers see water recycling as a way to survive that future. The project still needs a slew of permits from the state, but if all goes well, the taps could open up in just three years.