

SBCWD UPDATE WINTER/FALL 2013-14



SAN BENITO COUNTY WATER DISTRICT

Volume 8, Issue 1

Winter-Fall 2013

2014 a BIG Year for Water in California

Evolution of a Water Bond

There is simply nothing more important to California's future than an adequate and dependable supply of clean water.

A California Water Bond is on the November 4, 2014 ballot, as the Safe, Clean, and Reliable Drinking Water Supply Act.

The Water Bond Measure was originally certified to be on the state's 2010 ballot. It was removed and placed on the 2012 ballot. The California State Legislature, on July 5, 2012 approved a bill to take the measure off the 2012 ballot and put it on the 2014 ballot; Lois Wolk, one of the state senators who voted in favor of this move, said that it was undertaken because the Democratic majority in the state legislature wanted to do everything they could to ensure that the Jerry Brown Tax Hike Initiative on the November 6, 2012 ballot had a good chance of passing. She said, "We were faced with a tax levy. It would have been disastrous to have [the borrowing] on the ballot at the same time."

If voters approve the water bond, it will allow the state government to borrow \$11.1 billion to overhaul the state's water system.

Although there will be plenty of hot-button issues on the 2014 ballot in California, some observers predict that "the biggest fight, the sharpest split, may come over water."

The Association of California Water Agencies (ACWA) is supporting modifications to the current 2014 water bond to protect key priority areas and aid its passage next year. ACWA's Board of Directors approved guidelines for the modifications and directed staff to support reductions to the bond while prioritizing funding for elements that have statewide significance.

The guidelines stem from a statewide California Water Finance Task Force convened by ACWA this year to explore options for improving the bond's viability in 2014. The task force which includes Board members from all 10 ACWA regions and is supported by a diverse working group of member agency experts, worked through a deliberative process to formulate its recommendations to the ACWA Board.

Based on the Board's action and further discussion by the task force, ACWA's go-forward direction includes:

- Avoiding "earmarks" that allocate funds for specific projects without a competitive process;
- Rejecting statewide fees on water to pay for statewide public benefits;



Sacramento-San Joaquin Delta

- Protecting current bond funding levels for the public benefits of water storage projects, Delta ecosystem restoration, and assistance for disadvantaged communities;
- Supporting substantial funding for local resources development projects, including Integrated Regional Water Management programs in both urban and rural areas, water recycling / conservation, and groundwater cleanup; and;
- Providing additional funding at the local / regional level for local projects by looking at new tools and approaches that work for local water agencies.

The Need for the Water Bond

Virtually every aspect of California's economy depends on water. Yet investments in the statewide water system have not kept pace with a growing population and changing needs. Large-scale investments are needed in areas such as water storage capacity, recycling facilities, levee improvements, flood control facilities,

and water treatment plants. Substantial investments in ecosystem restoration and habitat improvements are also needed if we are to meet the coequal goals of improved water supply reliability and ecosystem health.

How the Funds Would be Allocated

In its current form, the bond would allocate roughly \$4 billion for local resources development, \$4 billion for ecosystem restoration and \$3 billion for the public benefits associated with new surface and groundwater storage projects. Every \$1 authorized as part of the bond would leverage \$3 to \$4 in other funds, for a total of up to \$40 billion for needed investments.

The vast majority of public funds allocated by the bond would go through a rigorous competitive process to ensure dollars go to a public benefit. There would also be careful review of dollars targeted for ecosystem restoration and a competitive process to determine the highest value investments.

Index

CA Water Bond	Page 1
Free Workshops	Page 2
2014 Water Supply Outlook	Page 3
On Farm Water Conservation	Page 4

SBCWD UPDATE WINTER/FALL 2013-14

FREE Water Use Efficiency Workshops



FREE Workshop for Landscape Professionals Thursday, January 23rd 8:30 am—12:30 pm San Benito County Water District

This workshop covers the basics of sprinkler selection and adjustment, as well as pipes, fittings and gluing. Lateral line repair and tips as well as sprinkler problems, maintenance tips and irrigation scheduling.

Classroom lecture combined with hands on training.



FREE Grower's Workshop Friday, February 7th 8:30 am—12:30 pm San Benito County Water District



Dr. Larry Schwankl has been an Irrigation Specialist with UC Cooperative Extension for over 25 years. He works on a wide range of urban and agricultural irrigation water management topics, with emphasis on irrigation system management.

Dr. Daniele Zaccaria is agricultural water management specialist in Cooperative Extension at the Land, Air, Water, Resources Department of UC Davis. His expertise is on design, performance analysis, and modernization of pressurized irrigation systems,.

Topics include:

- Water use on crops - "How much water should be applied".
- Determining the application rate of drip, tape, or microsprinkler system - "How much water is being applied".
- Maintenance of their microirrigation systems.



The Water Resources Association of San Benito County will be coordinating both of these workshops. **To reserve a seat or for more information call Shawn Novack, Water Conservation Program Manager at (831) 637-4378 or send an email to him at snovack@sbcwd.com**

Farm water shortages could linger into 2014 by Steve Adler

Having struggled with short water supplies in 2013, farmers on the west side of the San Joaquin Valley have been warned that next year could be worse.

That's the assessment of Tom Birmingham, general manager of the Fresno-based Westlands Water District, which buys water from the federal Central Valley Project. Growers this year are receiving a 20 percent allocation and, unless there is a very wet winter ahead, Birmingham said the initial CVP allocation next spring could be zero.

Birmingham said end-of-year storage for all CVP reservoirs are below average and as a consequence there is very little water carried over from this water year into the next water year. "It is for that reason and the potential restrictions on the operation of delta pumping plants that we are projecting that absent a wet December and a wet January, it is probable that the initial allocation for water users in Westlands will be zero," he said.

To cope with this year's reduced water deliveries, farmers have had to make hard decisions on how to utilize the water they have. Those who grow both annual crops and permanent crops have often fallowed the open land to use their allocation to keep the trees and vines alive. Others are pumping groundwater to supplement, and still others are buying water wherever they can find it and paying record high prices.

Farmer Dan Errotabere of Riverdale said he is paying three times the CVP contract price for supplemental water and even so, it is difficult to obtain water. "Because of the 20 percent allocation, we have had to fallow about 600 acres and if we get a zero allocation in 2014, we will have to fallow a lot more acres than that. We will just be focusing on our permanent crops and forget about the row crops. We have been relying more and more on groundwater and that has been dropping too," he said. "This is one of the worst scenarios I have ever seen. For some of the farmers who have a large part of their operation in permanent crops, some of them are going to run out of water this month."

Farmer Shawn Coburn of Firebaugh is in a similar situation. He said he planted no row crops this year and is pumping groundwater to keep his almonds and winegrapes alive. "I will try to buy water wherever I can find it. The problem is that there isn't any water around to buy. I'll try to pump as much as I can physically. And that is all I can do," he said.

Another Firebaugh farmer, Bill Dietrich, said that he, like most Westside farmers, has been converting his cropland to drip irrigation in order to maximize the benefits from the water that he has. "As of next spring, I will have 100 percent of my acreage under drip irrigation. All of my row crops are drip irrigated except for one 80-acre field of alfalfa and it is scheduled to be put into drip this fall," he said. "On the Westside I grow almonds and prunes, and those are the crops that are in jeopardy. I really don't know what the future will be, even in 2014."

Dietrich said the impacts of water shortages might not be visible to people driving through the Westside on Interstate 5, but the effects are noticeable nonetheless.

"For the public and some of the legislators who look at it from the outside, they think that everything looks pretty much the same, but the bottom line is that a lot of assets are being used up to maintain these crops, and they are going to be running out, particularly if there is a zero allocation next year," he said. "The people who aren't connected to it drive by and think everything looks normal, but just under the surface it is ready to crack."

Birmingham said it isn't just the individual farmers being affected by the water cutbacks; they cause economic impacts throughout the valley, as fewer planted acres equate to fewer people being hired to cultivate and harvest the crops.



Water officials say San Luis Reservoir could drop to historic lows. (Photo/Dave Kranz)

Continued on next page

He said that even though last November and December saw near record precipitation in California, reservoirs were not allowed to fill because of restrictions on the operation of delta pumping plants related to Endangered Species Act protection of delta smelt. "As a consequence, from mid-December through the end of February the two projects (CVP and State Water Project) lost in excess of 812,000 acre-feet of water that is gone forever and cannot be recaptured," he said. "San Luis Reservoir did not fill, and had we been able to capture that water, notwithstanding the dry conditions in the later part of the water year, the allocation for farmers in Westlands would have been 40 to 45 percent. But instead our allocation is 20 percent."

So what lies ahead for 2014?

According to Birmingham, "farmers typically make their planting decisions in November and December", but many made their decisions earlier this year. I believe that because of the forecast for water deliveries next year, farmers made those decisions earlier than normal. They were trying to conserve as much water as they can to reschedule that water from this year into next year as a means of protecting their permanent crops. It is my understanding from having talked to many farmers that they have made the decision to not plant annual crops next year and if they do plant annual crops, those plantings will be limited to less than 20 percent of what would be planted in a normal year," he said.

Reprinted with permission from the California Farm Bureau Federation

AGRICULTURAL WATER USE

California's unique geography and Mediterranean climate have allowed the State to become one of the most productive agricultural regions in the world. The Sierra Nevada Mountain range that lines the eastern edge of the State capture and store winter precipitation that can be then used for summer irrigation in the Central Valley. This water, combined with the Mediterranean climate permits the growing of a great number of crops. California produces over 250 different crops and leads the nation in production of 75 commodities. California is the sole producer of 12 different commodities including almonds, artichokes, dates, figs, raisins, kiwifruit, olives, persimmons, pistachios, prunes and walnuts.



Most of this production would not be possible without irrigation. In average year California agriculture irrigates 9.6 million acres using roughly 34 million acre-feet of water of the 43 million acre-feet diverted from surface waters or pumped from groundwater.

California's population growth and greater awareness of environmental water requirements has increased the pressure on California agriculture to use water more efficiently and to make more water available for urban and environmental uses. Decreasing agricultural water use is difficult for several reasons. First, California agricultural water use when considered on a broad regional scale, for the most part, is very efficient. Individual fields and farms in some regions may have low efficiencies, but water that is not used on one farm or field is often used on a nearby farm or field. Secondly, for most crops, production and yield is directly related to crop water use. A decrease in applied water will often directly decrease yield. The key is management strategies that improve water use efficiency without decreasing yield.

There are technologies and management strategies available that conserve water while maintaining yield and production standards. These technologies and management strategies like improved irrigation scheduling and crop specific irrigation management often not only conserve water, but also save energy and decrease grower's costs.

ON FARM WATER CONSERVATION METHODS

Irrigation Scheduling

Deciding when and how much water to apply to a field has a significant impact on the total amount of water used by the crop water use efficiency and irrigation efficiency. A number of different scheduling systems have been developed that can use either soil-plant or atmosphere-based measurements to determine when to irrigate. Using a more scientific approach to scheduling has generally been shown to decrease the amount of water applied while improving yield.

Tailwater Return Systems

To provide adequate water to the low end of the field, surface irrigation requires that a certain amount of water be spilled or drained off as tailwater. Tailwater return systems catch this runoff and pump the water back to the top of the field for reuse.

Irrigation System Improvements

Irrigation system improvement involves modifying the irrigation method or use of hardware and software to properly apply water to the field while minimizing water losses. For example improved furrows, combination of furrow and sprinkler, and changing from surface irrigation (flood, furrow and border check) to pressurized systems. Changing from surface irrigation to pressurized systems (sprinkler, drip, microirrigation) generally increases irrigation distribution uniformity and decreases applied water, although with certain soil types and applications, surface irrigation can be very efficient. In California there has been a trend to shift from surface irrigation to pressurized systems.

***See page 2 for workshops on water use efficiency**