

# CCID OBSERVER

NEWS AND INFORMATION FROM THE CENTRAL CALIFORNIA IRRIGATION DISTRICT • WWW.CCIDWATER.ORG • ISSUE TWO • 2017

## Flood Flows Bring High-Quality River Water to CCID Consumers

CCID's first wet spring since 2011 is bringing significant improvements to water quality as a result of flood flows routed from Pine Flat Reservoir and Millerton Lake into the San Joaquin River and from there into the CCID canal system.

The District spent the last few months managing flood flows coming into the water delivery system, rather than bracing for a water-short year, and those flood flows are likely to continue in the River system through June if not well into the summer.

"The Exchange Contract water out of the Delta-Mendota Canal averages 300-400 tds,

where as the water quality out of the San Joaquin River is 30 tds, so it's a significant water quality benefit," said CCID General Manager Chris White.

In addition, because CCID consumers were using water out of the River, more water is available in the Delta-Mendota/San Luis Reservoir system for neighboring Westside CVP contractors.

As a result, Central Valley Project contractors South-of-Delta were granted a 100-percent allocation of their contract supply for the first time since 2006. The San Joaquin River Exchange Contractors are well above the threshold of inflows into

Shasta to receive a 100-percent allocation. Projected inflows could reach nearly 10 million acre-feet, or three times the 3.2 million acre-feet required.



FLOOD RELEASES FROM PINE FLAT AND MILLERTON LAKE ARE FEEDING THE CCID WATER DELIVERY SYSTEM, ALLOWING WATER IN THE BRIMMING DELTA-MENDOTA CANAL SYSTEM TO PROVIDE DELIVERIES TO WESTSIDE FEDERAL CONTRACTORS.

## First Project of Los Banos Creek Diversion Completed

■ COMPLETION OF FIRST PROJECT ALLOWS DIVERSION OF FLOOD FLOWS INTO CCID SYSTEM.

Work on projects within the Los Banos Creek Water Resource Plan continues to advance with completion of diversion structures to help direct flood releases from Los Banos Creek into the Delta-Mendota Canal.

The Water Resource Plan contains a series of projects designed to increase groundwater recharge and storage capacity for flood releases and developed water within the Los Banos Creek basin.

CCID General Manager Chris White said Project 1, construction of a diversion weir in Los Banos Creek and inlet structure into the Delta-Mendota Canal, is now complete. Environmental and engineering work will now begin on the second phase, which

includes a pipeline to transfer water into Los Banos Creek Detention Dam and other projects to operate the Reservoir for additional storage and recreation benefits.

"That process will take about a year to get approvals to start work, but in the meantime, the next time we see incidental flood releases being made from Los Banos Creek we will be able to divert those flows into the Delta-Mendota Canal for use as water supply," White said.

Once environmental reviews are complete on Project 2, a relatively quick construction window of less than six months is expected.

The projects are being undertaken by a partnership of three agencies: The Exchange Contractors, San Luis Water District and Grassland Water District. Overall, the Los Banos Creek Diversion should bring significant water supply benefits to the partner agencies of an estimated 14,000 acre-feet annually. In addition, it will provide the benefits of recharge along the creek, improving a corridor of the Los Banos Creek that is often dry and also providing a mechanism for managing against negative impacts of flood flows in wildlife areas.

"We are going to turn those problems into an opportunity for water supply," White said.

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CONSERVATION SPOTLIGHT



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FIRST OF TWO SOUTH DIVISION  
RESERVOIRS NEARLY OPERATIONAL

# A Conversion to Drip at A-Bar Ag Enterprises

■ NEW ALMOND PLANTINGS WILL BENEFIT FROM WATER CONSERVATION PROGRAM FUNDING INCENTIVES TO HELP IMPROVE PRODUCTION AND MANAGE DRAINAGE.

With nearly 7,500 acres of alfalfa, row and tree crops across five water districts, A-Bar Ag Enterprises in Firebaugh is used to some uncertainty when it comes to water, and also to finding creative solutions to help mitigate some of that uncertainty.

The farming partnership spans five generations, and is now headed by Aaron Barcellos and his brother Aric and father Arnold. On a ranch near the home where Aaron grew up, Barcellos is installing 200 acres of double-line drip on a newly planted almond orchard with the help of CCID’s Water Conservation Program. The program offers cost-share grants and low-interest loans to help growers within the District install on-farm conservation improvements.

The block was previously farmed to alfalfa and cotton on flood irrigation and is part of a 325-acre conversion to almonds—the first for A-Bar Ag.

Currently over 6,000 acres of A-Bar Ag’s total acreage is on drip, a conversion that has gradually taken place over the last dozen years. A-Bar started with drip on processing tomatoes in 2004 and Barcellos said the company is very familiar with the technology. Once three additional CCID Conservation Program projects are installed, its entire acreage within the District will be on drip.

“We would put drip in even without the financial incentives, for the production benefits alone. But it also helps us comply with drainage restrictions under Irrigated Lands regulations. On this block we are going to be able to reduce our surface drainage to almost zero,” he said.

CCID’s Water Conservation Program provided a \$400/acre cost-share grant, plus an additional low-interest loan to help cover some of the remaining \$1,500 per acre cost for installing

the state-of-the-art system.

A-Bar Ag is planting its first almonds this year after several years of looking for a good location on its property. Barcellos was unsure almonds would thrive under the high water table, even after the field was tiled.

“New rootstocks and varieties gave us the confidence to plant almonds on this ground even with the higher water table,” Barcellos said.

He said the company was looking to move away from labor-intensive crops and find a way to confront pending groundwater regulations he says are likely to come farmers’ way.

Almonds also offer a high-value crop to justify the high-value resource water has become in today’s farming environment. Compared to the flood irrigated alfalfa that used a required 4.5 to 5 a.f. per acre on the block, the new drip almond system at full production will use between 3 and 3.5 a.f. per acre, Barcellos estimates.

“You have to have crops that support that value,” he said. “At the same time you have to show good stewardship of the resource.”



THE FULLY AUTOMATED SYSTEM ALLOWS A-BAR AG TO DIAL IN FERTILIZER APPLICATIONS AND PRECISION IRRIGATION FOR INDIVIDUAL VARIETIES.



AARON BARCELLOS AND BROTHER ARIC ARE IN PROCESS OF CONVERTING ALL CCID GROUND TO DRIP IRRIGATION WITH THE ASSISTANCE OF CCID’S WATER CONSERVATION PROGRAM.



AARON BARCELLOS IS AMONG FIVE GENERATIONS TO FARM THE LOS BANOS HOME RANCH GROUND WHERE HE GREW UP AND LOCATED IN CCID.

The orchard is planted to Nonpareil/Monterey almonds (with some self-pollinating Shasta trees to “hedge their bets”).

“Over the next three to four years we are going to plant more almonds so we are trying to get a feel of what is going to work best for us.”

The 200-acre block is divided into two highly automated irrigation systems designed to meet peak ET<sup>o</sup> in six days of each week. That allows Barcellos and his irrigation

*Continued on next page*

# First of Two South Division Reservoirs Nearly Operational

Construction is nearly complete on one of two regulating reservoirs in the South Division and work should begin on the second reservoir by the end of the summer. Earth and civil work on the East Ditch Reservoir are complete and crews are currently finishing up electronic control systems and pumping facilities to get the reservoir fully operational.

The District is currently accepting bids on construction of the Poso Reservoir along the Poso Canal and San Joaquin River north of Valeria Ave., with the expectation it will be fully operational by this time next year.

The East Ditch and Poso reservoirs will help bring water savings, delivery flexibility and modernization to the District's South Division. The East Ditch reservoir will recover an estimated 6,500

acre-feet of operational spills per year over the next 20 years and Poso reservoir an additional 4,600 acre-feet.

In addition, capturing flood flows into the reservoirs will provide added flexibility in delivering water to CCID customers in the South Division to accommodate the needs of modern pressurized irrigation systems, particularly in the Colony Canal system.

The regulating reservoirs are part of a series of In-District Conservation projects identified and developed as part of the District's 10-year modernization and conservation plan.

"We expect to be 90 percent complete with Poso Reservoir by winter and in a similar place by this time next year so it can be operational by 2018," said CCID General Manager Chris White.

## Conservation Spotlight

*Continued from previous page*

team to schedule an extra day of irrigation to catch up if they fall behind on ET°. Automated valves also allow A-Bar to customize its irrigation sets for different varieties. The system also includes an automated fertilizer injection system and eight sand media filters that feed irrigation water through in-line drip emitters to each individual tree. As orchards mature those drip lines can be easily moved to target water to the root zone.

"This system is designed for 90-percent efficiency," Barcellos said.

*"We would put drip in even without the financial incentives, for the production benefits alone. But it also helps us comply with drainage restrictions under Irrigated Lands regulations."*

—Aaron Barcellos, A-Bar Ag



AARON BARCELLOS OF A-BAR AG SAYS THE NEWLY PLANTED BLOCK OF DRIP-IRRIGATED ALMONDS IS DESIGNED FOR 90 PERCENT EFFICIENCY.

## Water Conservation Program Deadline Aug. 11

- 50 percent cost-share grants up to \$400/acre benefited for concrete lining and pipeline.
- 25 percent cost-share grants up to \$400/acre benefited for irrigation improvements, e.g. microirrigation, return systems, dairy related projects.
- 3 percent interest loans up to \$1,000/acre benefited to cover farmer cost.
- Project design and cost estimate required prior to deadline
- Applications processed and reviewed collectively in time for October construction.
- Guidelines available at [www.ccidwater.org](http://www.ccidwater.org)



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## *A look back...*



### ***50 Years Ago – Spring 1967***

After considering the purchase of the Miller & Lux Building in downtown Los Banos, the Board of Directors decided instead that the District should construct its own office building. It was tentatively planned to locate the building on District-owned property south of the Main Canal in Los Banos, between Highway 152 and the West I Street bridge. In June 1967 Robert Beharka was hired to do preliminary design work.

### ***25 Years Ago – Spring 1992***

Responding to an unprecedented second consecutive Critical Year, the Board of Directors adopted a revised budget for 1992 that cut about \$250,000 in costs, established an Annual Water Charge of \$21.75 per acre for 2.6 a.f./acre, and reorganized the District's work force, laying off a total of nine employees.

### ***10 Years Ago – Spring 2007***

The District began its ongoing partnership with local farming interests on an irrigation water display at the "Little Hands" agricultural exhibit at the annual Los Banos May Day Fair.