

# the Grower

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## 2014 season begins under dry conditions

With the backdrop of a state-declared drought emergency and consecutive dry years to the Tuolumne River Watershed, a challenging 2014 Irrigation Season began April 10.

In February, the Turlock Irrigation District Board of Directors set the irrigation season to run from March 27 through October 8 with an amount of available water limited to 20 inches per acre. However, the season's opening date was pushed back two weeks to the April 10 date due to a combination of factors, including some local rainfall, a lack of surface water demand, and a lack of overall available water supply due to drought conditions.

Growers may complete a final irrigation. However, the maximum amount of water growers will be allowed to exceed the available water will be four (4) inches. Customers are allowed to transfer water from parcels they rent or lease this season even if they did not rent or lease the parcel during the 2013 season, provided the District's records show that the parcel received water the previous year.

Due to the drought conditions and other reasons, it is imperative that all water orders for parcels to be irrigated are placed by calling the **Irrigation Call Center at 883-8456**. TID will continue to keep growers informed throughout the season via this newsletter and e-mail messages to growers who have provided their e-mails. If you have not received periodic e-mails from TID this year, send an e-mail to [info@tid.org](mailto:info@tid.org) to be added to the list.

The 2014 irrigation season marks the second season the District will be charging customers based upon a volumetric pricing rate structure, as opposed to the 'allotment' structure of the past. In line with this structure and current conditions, the Board has set Dry Year pricing for 2014. More information on this pricing is available online at [tid.com/water/water-rates](http://tid.com/water/water-rates).

Partially due to the hydrology numbers at right, which reflect an overall lack of rain and snowfall as well as multiple dry years, the TID Board also adopted a drought resolution stating TID to be in a drought state of operation. Drought updates are available at [tid.com/drought](http://tid.com/drought).

A certain amount of precipitation that may occur during the season is already built into the available water for the 2014 Irrigation Season. However, of particular concern this year is the probability that runoff may not come into Don Pedro for many reasons, including the possibility that more runoff than normal may be consumed by the already dry upper watershed.

TID will strive to serve customers to the best of its ability while also acknowledging the constraints of the drought. TID will endeavor to run the canal system as efficiently as possible, and asks growers continue to make every effort to conserve and use water as efficiently as possible during this difficult season.

### IMPORTANT DATES

#### May 1

Irrigated Lands  
Farm Evaluation  
Survey deadline  
(see inside)

#### October 8

Final day of  
irrigation season

#### Throughout November

Water Use Statements  
mailed

#### December 20

Water transfers must  
be completed

### INSIDE

- Water measurement
- Irrigated Lands program update
- State Board flow proposal
- Drought resources

### AS OF APRIL 8...

- The Tuolumne River Watershed received **only 53 percent of annual historical precipitation**.
- The **Full Natural Flow of the river for the 2014 water year stood at 185,693 acre-feet**. 2013 was about 1.1 million AF. The 50-year average is about 1.9 million AF.

## Meter installation and sidegate prep part of TID project

TID continues to make progress in its efforts to fully comply with the state's Water Conservation Act of 2009, a law also known as SBx7-7. As such, water metering equipment is currently being installed throughout the District.

The law specifies that all agricultural water suppliers serving more than 25,000 acres must charge customers based on the actual volume used and within a specific accuracy tolerance.

TID's existing water distribution system does not currently meet this accuracy tolerance for all sidegates. In order to comply with the law, meters are being installed. TID's goal is to rate the flow of every parcel receiving water by the end of the 2015 irrigation season.

The law does not specify a certain type of meter to be used, however it does specify the accuracy by volume of  $\pm 5$  percent on any new device. Last year, the District performed a pilot study to verify which meters would comply with the law and also not hinder operations involved with flood irrigation deliveries. Based on this pilot study and the way TID customers irrigate, meters manufactured by Rubicon, Marsh McBirney and Sontek were chosen.

Two types of Rubicon meters are being installed. One is a permanent replacement for a sidegate. The other is a mobile meter.

The mobile unit, called a Flume Meter, will be moved from one sidegate to another. For those irrigators who see a large aluminum frame being installed in front an existing sidegate, the Flume Meter is the type of meter planned for measuring water volume at that specific sidegate. Flume meter-measured sidegates will not change the way irrigators have historically operated sidegates.



*Slip Meters like this one (accompanied by a solar-powered pedestal) will replace some sidegates within the TID system.*

The second type of Rubicon meter being installed across TID is called a Slip Meter. Slip Meters completely replace an existing sidegate. The Slip Meter is fully automated and will adjust itself to deliver the required flow. The Slip Meters send digital data to TID in real time and will change the way irrigators have historically operated sidegates because the original gate is removed. TID Water Distribution Operators and other staff will train irrigators receiving water through Slip Meters. Additional information regarding training will be made available to irrigators as the Volumetric Water Measurement Project progresses.

TID staff will use a combination of mobile meters made by Marsh McBirney and Sontek to measure pipelines and ditches not receiving a Flume Meter or a Slip Meter.

Irrigators utilizing any type of drip, micro or solid-set sprinkler irrigation systems will be measured as well per the law.

TID does not intend to bill any water from this new data until all parcels have been rated. This will take at least two irrigation seasons.

Visit [tid.com/measurement](http://tid.com/measurement) for updates on the project.

## Coalition farm surveys due May 1

The May 1, 2014 deadline for growers to complete and submit their Farm Evaluation Surveys as mandated under the state's Irrigated Lands Regulatory Program is nearing.

The East San Joaquin Water Quality Coalition (ESJWQC) encourages members to complete the survey, an important information gathering requirement of the new Waste Discharge Requirements (WDR) adopted by the Central Valley Regional Water Quality Control Board in 2012.

The ESJWQC is holding workshops this month to assist members at county farm bureaus in Modesto, Merced and Madera. At the voluntary workshops, members can get one-on-one help completing the survey. A workshop schedule is posted at [esjcoalition.org/events.asp](http://esjcoalition.org/events.asp).

The survey is intended to be a census of farm management practices being used on irrigated cropland in the Central Valley to protect surface water and groundwater.

Any ESJWQC member who has not yet received a Farm Evaluation Survey should call 209-225-3914 or e-mail [contactesj@esjcoalition.org](mailto:contactesj@esjcoalition.org).



*Mike Hansen of Ag Flag illustrates how an Ag Flag water location indicator can work to help growers conserve water at a recent TID Board of Directors meeting.*

## Ag Flag one tool to help during drought

Growers like you are resilient, in part because you find ways to make every drop count, through drought or storm. And when it comes to resiliency, sometimes it's the small things that make a big difference.

There are many tools available for growers looking to get through the drought that's facing our region and state. These tools come in many forms, including information, farm or water management, and financial assistance.

Visit [tid.com/drought](http://tid.com/drought) for a list of links, resources and tools that may prove helpful during this unprecedented drought.

One water management tool for irrigators was on display for the TID Board of Directors back in March. The Board heard a presentation from Ag Flag, a low cost water management system that allows growers to further monitor their irrigation.

Experienced flood irrigators know that

when water reaches a pre-determined spot in their field or orchard, it's time to move the water or shut it off. Mounted at the end of a 5-foot-long Fiberglass pole, which is bent over in a U-shape, the Ag Flag springs up when irrigation water dissolves a strip of paper that secures the flag end of the pole to a stake in the ground, alerting the irrigator to shut off the water.

In an ongoing effort to help TID growers manage their water during the current drought, TID purchased a limited supply of Ag Flag kits and is offering them free of charge to its growers (limit two per grower, while supplies last). Additional kits may be purchased online from the Ag Flag site.

TID growers may contact the District at 883-8356 for information about how to pick up Ag Flag kits. Of course, while the Ag Flag is a useful tool, TID cannot guarantee its results.

## Update on State Board SED process

TID continues to closely follow Phase 1 of the State Water Resources Control Board's update to its Bay-Delta Water Quality Control Plan.

The plan could mandate the Tuolumne River and other tributaries of the San Joaquin to dedicate a significant percentage of unimpaired flow from February through June annually to improve fish populations and the Delta salinity.

The board's Draft Substitute Environmental Document (SED) was scrutinized at public hearings in March 2013, with water agencies such as TID and MID opposing the proposal, citing the potential harm to water and power customers and the region's economy, agriculture operations and water supply.

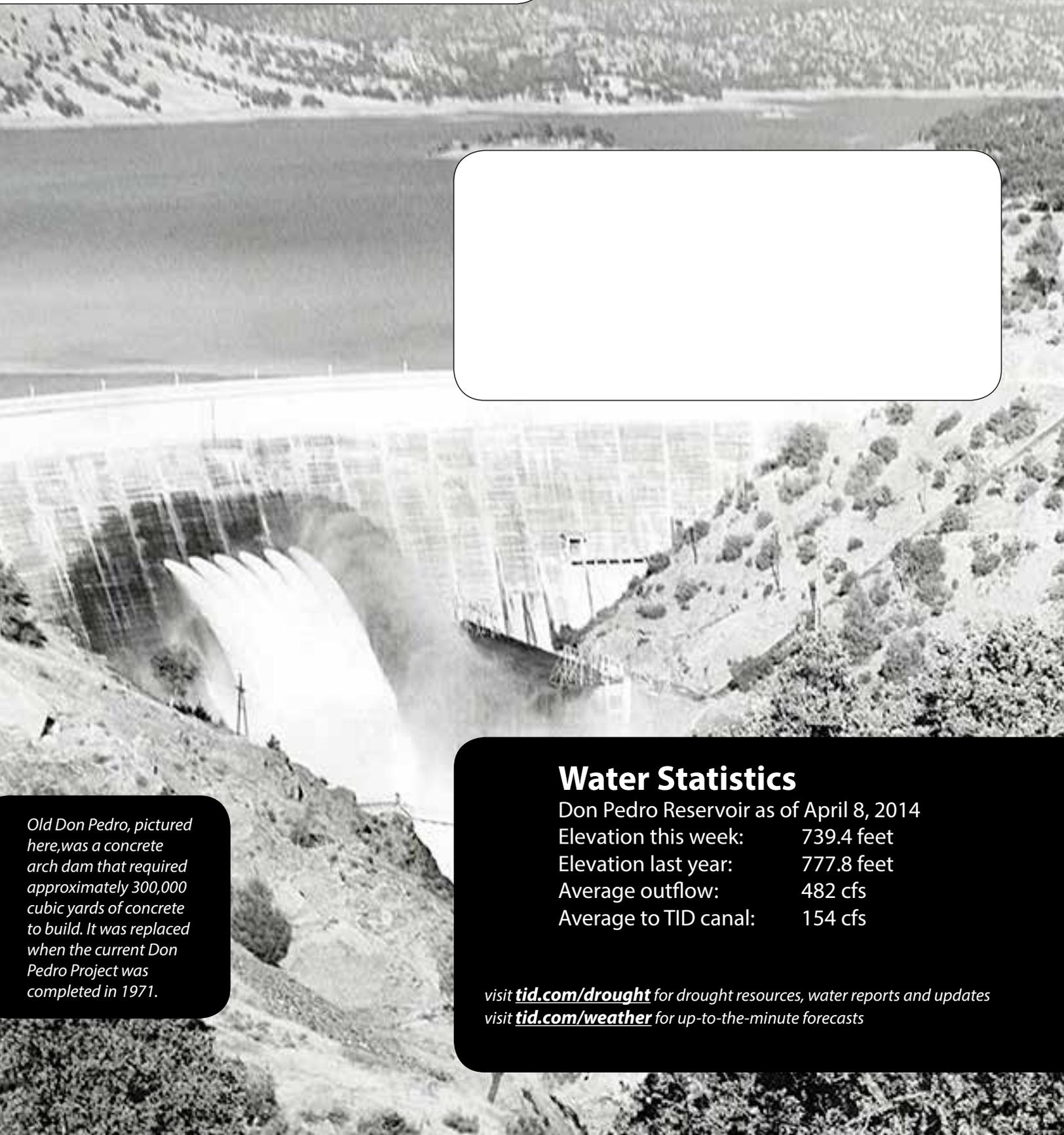
State Board staff has indicated it plans to issue a Revised SED sometime this summer, complete with analyses regarding how mandating more surface water for environmental uses will affect groundwater in the region. State Board staff is hoping to obtain State Water Board approval of a Final SED by the end of 2014.

More information, including transcripts and presentations from the March 2013 hearing, are available at [tid.com/SED](http://tid.com/SED).



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*Old Don Pedro, pictured here, was a concrete arch dam that required approximately 300,000 cubic yards of concrete to build. It was replaced when the current Don Pedro Project was completed in 1971.*

## Water Statistics

Don Pedro Reservoir as of April 8, 2014

Elevation this week: 739.4 feet

Elevation last year: 777.8 feet

Average outflow: 482 cfs

Average to TID canal: 154 cfs

visit [tid.com/drought](http://tid.com/drought) for drought resources, water reports and updates  
visit [tid.com/weather](http://tid.com/weather) for up-to-the-minute forecasts