OAKDALE IRRIGATION DISTRICT GENERAL MANAGER'S NEWSLETTER DECEMBER 2020

This GM Newsletter will discuss: (1) OID's and SSJID's Water Right; (2) Provide a wrap-up of the water year; and (3) Discuss causations of falling water tables locally.

Water Rights of OID/SSJID

When the districts acquired their water rights in the early 1900's they acquired a "flow right," through the adjudication process, to secure 1,816.6 cubic feet per second. This water is only available between March 1 to October 31 of each year. This is very important to understand! Outside this time period OID and SSJID have no right to divert or use any water.

In the 1960's, along comes the Federal Government who wanted to build a Dam on the river. In order to get a permit to build New Melones the State of California told the Feds they had to satisfy the needs of the senior water right holders first, those major rights being held by OID and SSJID. After some haggling (short version), the Feds and the two Districts signed an Agreement in 1988 that gave the two Districts the <u>first</u> 600,000 acre feet of runoff between October 1 and September 30 into New Melones.

The fact that OID and SSJID get the first water out of the basin is a testament to the strength of the Districts' water right, as you'll see below. However, in keeping with the language of the original water right, any of the 600,000 acre feet (AF) that flowed into New Melones and not used by September 30th reverted back to federal water and was lost to the Districts. That is why OID and SSJID work diligently every year to sell water under a contract to whomever wants it before the September 30th deadline. It would be fiscally irresponsible to not gain maximum value out of a "surplus" resource which evaporates (no pun intended) at the end of September.

Water Year Wrap-up

Before we begin talking about last year's water season we need to talk about how the word <u>average</u> plays into this discussion. Talking water in California is like talking feast or famine. The term <u>average</u> in a water discussion is like having one foot on the stove and the other foot in the refrigerator but on <u>average</u>, you feel pretty good. We know that's not accurate, so keep that in mind when anyone talks about water in CA.

In the 2019-2020 water year the Stanislaus Basin produced 648,777 AF of runoff into New Melones. The Basin's average annual yield is 1,080,000 AF, so in round numbers this year's runoff was about 60% of average. To my earlier point, the Basin produced 60% of average runoff but OID and SSJID received 100% of their water entitlement under the 1988 Agreement, highlighting the advantages of owning farmland in the OID service area.

The first month of the water season was October 2019. In that month OID diverted 16,702 AF. I mention this number to draw attention to the fact that water deliveries in October have changed since 2016. Prior to 2016 OID provided customers 1-irrigation in October, ending the water season by the 12th of the month. OID now provides irrigation services through October.

The Board decided back in 2016 to extend the delivery of water through the end of October to help recharge aquifers hit hard by 5-years of drought. Prior to 2016, late season deliveries totaled about 5,000 AF feet, now it's between 15-20,000 AF. For late harvest almond and walnut growers this has been very beneficial. It allows them to apply deep soaking post-harvest irrigations using OID surface water without having to turn their groundwater pumps on. This is the benefit of the modernization efforts OID committed to; generating conserved water for beneficial purposes like reducing groundwater pumping.

Total river diversions at Goodwin Dam by OID from October 1, 2019 to September 30, 2020 totaled 239,765 AF. To get a gross accounting of OID's canal water we add the 1,422 AF of groundwater that OID pumped, 3,345 AF of reclaimed (recycled) water, and 855 AF of river pump water. When totaled, you get 245,687 AF of gross system water in OID canals.

Of the 245,687 AF of gross system water, 183,629 AF was actually delivered to the farmgate for billing. This makes OID's Delivery System Efficiency 75%. Not a bad number considering most early irrigation systems built in the early 1900's were designed with 50% in mind. This is a telling metric for the advancements in conservation OID has made in its water delivery system.

Unfortunately the forecast for this coming winter is not all that rosy. The National Weather Service's Climate Prediction Center is calling for a moderately strong La Nina thru March 2021. La Nina years are typically a bit drier and warmer for the southwestern states so expect less than average rainfall this season.

Causation of Falling Water Table

During the last election there were numerous social media "water experts" sharing their opinions on the falling water table in our area. Now that the election smoke has cleared I would like to shed some insight on this subject.

OUTSIDE the OID service area, to OID's north, northwest and east are about 25,000 acres of privately owned lands pumping about 75,000 AF of groundwater. To OID's southeast is Eastside Irrigation District. A 60,000 acre water district pumping only groundwater to the tune of 180,000 AF annually. To OID's northwest is Central San Joaquin Water Conservation District. A district of about 67,000 acres that has a water right to irrigation water behind New Melones but a limited distribution system to deliver that water supply, hence they continue to pump groundwater. Every year they don't take New Melones water is another 200,000 AF out of the regional aguifer. All totaled, there are 152,000 acres pumping about 455,000 AF of groundwater OUTSIDE and SURROUNDING OID. Allowing these extractors liberal credit for the rainwater that falls plus natural recharge, their overdraft gets to around 300,000 AF. That's still a lot of water.

It is these extractions that are causing the aquifer beneath OID to fall 1.5-2.0 feet per year. Recent basin modeling clearly shows this fact. In my October Newsletter I provided OID's annual water balance reaffirming that OID and its in-district farmers contribute 51,700 AF more water to the aquifer than it removes, making OID a net positive recharger to the basin. Those around OID are getting all the benefits of OID's recharge while causing underground aquifers beneath OID to fall, triggering hardship to shallow well owners in OID.

The most efficient and least cost means to attain groundwater sustainability will be to reduce groundwater pumping. That's not going to happen anytime soon but it will eventually. Clearly, that adjustment will be painful for some.

The Groundwater Sustainability Act of 2014 created Groundwater Sustainability Agencies (GSA) to address and solve groundwater overdraft concerns. Our local GSA is preparing a legally required planning document to the State to address this matter by January 2022 for our area. To learn more go to: https://www.strgba.org/.

Best Wishes in the Coming Year from OID!

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