

June 14, 2013

Deer Creek Irrigation District Site Visit Notes  
For  
Opportunity #F13AS00190

Agency representatives present: Kevin Gale (California Dept. of Fish and Wildlife, CDFW), Tricia Bratcher (CDFW), Nancy Snodgrass (California Dept. of Water Resources, DWR), and Brenda Olson (U.S. Fish and Wildlife Service, USFWS)

The notes are written as they occurred, not grouped by subject.

The screen was rebuilt in the late 1990's. There are no As-Builts but are in the process of trying to find any information CDFW may have on them. In 2010 CDFW did complete a screen assessment.

DCID, CDFW, and DWR have a Memorandum of Agreement (MOA) to manage water for the benefit of anadromous fish. They are currently working on amending the MOA to lease water, which will be left instream by DCID. This potential lease would be paid by the 4-Pumps program. This agreement discusses the screen bypass, fish passage improvements, monitoring, and access road maintenance across the private lands.

The first diverters are 3.5 miles down the DCID ditch.

Grant Davids completed a water use efficiency analysis for DCID. The report is out and available.

About 4000 feet of the ditch was surveyed by DWR. It was found to have a 0.4% slope, dropping approximately 17 feet over the 4000 feet.

The USGS gage is upstream of the DCID dam; it also records water temperature. There is also a DWR gage located below the Stanford Vina Ranch Irrigation District's dam. This was installed in the late 1990's; it records temperature but is only rated to be effective, in terms of flow measurement, up to about 900 cfs.

Stop at Parshall Flume:

The flume was constructed in 1999. It has kept continuous records since installation. 45 cfs has been the maximum diversion recorded but the ditch capacity is 25 to 30 cfs. The capacity is developed by the head and orifice of the headgate.

Right now there are a lot of unknowns in regards to design. Currently at conceptual stage.

There was a question as to whether the lowered ditch would be lined or not. It could be lined to reduce head if needed, otherwise would be a natural channel.

Stop at Diversion Structure and Screen:

1999 photos taken after 1997 flood event shows only the large riparian trees, the smaller trees and vegetation did not exist.

The high water mark is a couple feet above the headwall.

If the ditch is lowered, the screen infrastructure will have to be redesigned/rebuilt, and possibly the bypass.

When the bypass is wide-open, adult fish can swim up the bypass pipe and exit into the ditch. Do not want to create attraction flow. Currently the bypass pipe is 2 feet in diameter.

A lot of fines come down and deposit in the riparian area after high water events.

Two headgates, 3 ft. tall by 4 ft. wide.

10 ft. wide opening into the ditch.

At 1400 cfs, the water flows around the wall between the dam and ditch (left bank, looking downstream).

At 3300 cfs, the water sheets over the wall on left bank.

The topographic lines on the photo in the RFP go further downstream to the riffle. The topographic survey goes from upstream riffle crest to downstream riffle crest. There are 90° turns upstream and downstream of the dam.

There are no design drawings for the current structure so do not know if the apron is structurally incorporated into the dam.

Conceptual rock ramp alternative: currently the thought is to leave the dam in place and have the rock ramp begin approximately 20 feet downstream. This will provide a pool between the structures and will not compromise the current dam structure.

The survey control points are marked in the field.

Currently a fish monitoring plan is being developed by CDFW for Deer Creek. This will provide consistent fish data in the future. Also a mandated flow study will begin soon on Deer Creek (fall 2013). The study will develop flow recommendations which will be used by the State Board to distribute flows to different beneficial uses. END of site visit.