Craig Wilson, Delta Watermaster
State Water Resources Control Board
Office of Delta Watermaster
P.O. Box 100
Sacramento, CA 95812

Subject: Response to Your May 29, 2013, Letter Regarding Shasta Reservoir Cold Water Conservation Actions for Fishery Resources

Dear Mr. Wilson:

This letter responds to a request you made in your May 29, 2013, letter regarding actions to conserve cold water in Shasta Reservoir for fishery resources. Specifically, you requested an accounting by August 22, 2013, of the volume of water conserved by changing the water year type from “Dry” to “Critical” as it pertained to the Water Quality Objectives for Agricultural Beneficial Uses under Water Rights Decision 1641 (D-1641) at the Western Delta and Interior Delta monitoring stations. Since D-1641 Western and Interior Delta agricultural objectives concluded on August 15, we are now able to estimate the effect of the conservation actions for the entire period.

The Central Valley Project and State Water Project (collectively, Project) operators estimate that approximately 55,000 acre-feet (af) of water was conserved in upstream reservoir storage due to conservation actions taken during early June to June 15, 2013. (The June 15 date is significant in D-1641 because, under the Dry Year criteria, this is the last day of the 0.45 electrical conductivity (EC) 14-day running average objective.) During this early June period, Project operators targeted the 7,100 cubic feet per second (cfs) 3-day average minimum net Delta outflow required to comply with the D-1641, Table III, Delta outflow objective in June (X2 compliance at the Collinsville location). This conservation action allowed salinity to slightly degrade in the Western Delta. (Please see Figures 1 through 5.)

For the remainder of June, Project operations continued to target the 7,100 cfs 3-day running
average minimum net Delta outflow objective for X2 at the Collinsville location. No additional conservation of water supply occurred in relationship to Dry Year Western and Interior Delta agricultural objectives, since the Delta outflow objective would have controlled under either the Dry Year or Critical Year objective.

For the month of July, Project operators targeted the D-1641 Table III minimum monthly outflow objective of 5,000 cfs for a Dry Year. Project operators projected that by operating to the 5,000 cfs target in July, it was possible that additional water supply conservation could occur if Western and Interior Delta salinity levels exceeded the Dry Year EC objectives on a 14-day running average basis by August 15, 2013. However, this did not occur, and no additional conservation of water supply can be attributed to the action.

Since August 1, 2013, project operations have been targeting Delta outflow rates consistent with managing for historical Delta salinity degradation rates at Bethel Island and Holland Tract associated with compliance of D-1641, Table I, Contra Costa Canal Chlorides objective of 250 ppm. (Please see Figure 6, Bethel Island Salinity for 2013.) We anticipate that Contra Costa chlorides will be the controlling Delta objective well into the fall of 2013. Concurrently, Reclamation is actively reducing releases at Keswick Reservoir in order to conserve storage and cold water resources into the fall. It is anticipated that this balancing of Delta salinity objectives and upstream reservoir release reductions and cold water shutter management will continue through September and into October.

In summary, our current evaluations show that approximately 55,000 af was conserved in upstream reservoirs through August 15, 2013. Delta salinity did not react as quickly to the modified operations for the Critical Year objectives as initially projected, and the conservation effect to upstream reservoir storage was less than originally anticipated.

If you have any questions regarding this notification, please contact Mr. Paul Fujitani of Reclamation at 916-979-2197 or Mr. John Leahigh of DWR at 916-574-2722.

Sincerely,

Ronald Milligan, Operations Manager
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Bureau of Reclamation

cc: Thomas Howard, Executive Director
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Delta Outflow for 2013

Period #1 Water Conservation - Outflow allowed to reduce to ~7100 cfs from ~9500 cfs over period of 11 to 12 days (Volume ~ 12 days * 2300 cfs = ~55 TAF)

Projects operated to ~5000 cfs minimum Dry year outflow target for July - produced no additional Water Conservation for the month of July. (Jersey/Emmaton in compliance with dry year objectives on July 31st.)

FIG. 5
Bethel Island Salinity for 2013

General EC Band where historic Bethel Is. EC and Holland Tract EC imply daily monitoring of Rock Slough Chlorides near 250 ppm objective.

Future water conservation (now till end of fall) to be managed and utilized through project operations.