

## **Written Testimony of Ronald Milligan**

### **Intro and bio:**

My name is Ronald Milligan and I am the Manager of the Central Valley Operations Office for the Bureau of Reclamation's Mid-Pacific Region. In my capacity as Operations Manager, I have responsibility for the day-to-day operations of the Central Valley Project ("CVP"), including, but not limited to, Shasta Dam, Trinity Dam, Folsom Dam, New Melones Dam, the Jones Pumping Plant, and the Federal operations of San Luis Reservoir. I oversee all operations of the CVP through coordination amongst all the divisions and units of the Central Valley Project as well as with other State and Federal agencies. My educational background is in civil engineering.

I meet regularly with my counterpart for the State Water Project regarding daily operations and implementation of the "Agreement Between the United States of America and the Department of Water Resources of the State of California of Coordinated Operation of the Central Valley Project and State Water Project" (COA). I also interact with staff from the State Water Resources Control Board (SWRCB) in regards to Reclamation's water rights. As Operations Manager, I am responsible for ensuring that Reclamation meets its responsibilities related to Federal requirements (such as ESA, CVPIA, etc.) as well as State requirements (such as D-1641 and other related water right permit conditions). I have held this position since November, 2004.

### **Statement on overall CVP/SWP operations:**

As chief operator of the CVP, it is my responsibility to consider federal and state laws, and other obligations and policies which govern operations. The CVP is the largest Federal Reclamation project and was originally authorized by the Rivers and Harbors Act of 1935. The Central Valley Project was reauthorized by the Rivers and Harbors Act of 1937 for the purposes of "improving navigation, regulating the flow of the San Joaquin River and the Sacramento River, controlling floods, providing for storage and for the delivery of the stored waters thereof, for construction under the provisions of the Federal Reclamation Laws of such distribution systems as the Secretary of the Interior (Secretary) deems necessary in connection with lands for which said stored waters are to be delivered, for the reclamation of arid and semiarid lands and lands of Indian reservations, and other beneficial uses, and for the generation and sale of electric energy as a means of financially aiding and assisting such undertakings and in order to permit the full utilization of the works constructed." This Act provided that the dams and reservoirs of the Central Valley Project "shall be used, first, for river regulation, improvement of navigation and flood control; second, for irrigation and domestic uses; and, third, for power."

The Central Valley Project was reauthorized in 1992 through the Central Valley Project Improvement Act (CVPIA). The CVPIA modified the 1937 Act and added mitigation, protection, and restoration of fish and wildlife as a project purpose. Further, the CVPIA specified that the dams and reservoirs of the Central Valley Project should now be used "first, for river regulation, improvement of navigation, and flood control; second, for irrigation and domestic uses and fish and wildlife mitigation, protection and restoration purposes; and, third, for power

and fish and wildlife enhancement.” CVPIA includes authorization for actions to benefit fish and wildlife intended to implement the purposes of that Title.

There are several other statutes that have authorized the construction, operation, and maintenance of various divisions of the CVP. In these authorizations, Congress has consistently included language directing the Secretary to operate the CVP as a single, integrated project.

Additionally, Reclamation must operate the CVP consistent with many other statutes, regulatory requirements and contractual obligations. These include Reclamation Law, the Endangered Species Act, Tribal trust responsibilities, National Environmental Policy Act, Clean Water Act, and National Historic Preservation Act as well as state laws pertaining to Reclamation’s exercise of its water rights. CVP operations must also meet obligations to those holding State-granted water rights which are senior to CVP rights, such as the Sacramento River Settlement contractors and the San Joaquin River Exchange Contractors whose senior rights on the San Joaquin River are met from other sources like the Sacramento River or Delta.

The CVP’s major storage facilities are Shasta Lake, Trinity Lake, Folsom Reservoir, New Melones Lake, Millerton Lake and San Luis Reservoir. The upstream reservoirs release water for delivery to in-basin users, including senior water right holders, instream river flow requirements, flows in Delta tributaries to meet Delta water quality objectives and outflow criteria, as well as for diversion of CVP water through the C.W. Jones Pumping Plant (Jones Pumping Plant) for storage in San Luis Reservoir (owned by the United States and jointly operated by Reclamation and DWR) or direct delivery through the Delta Mendota Canal. The Delta Mendota Canal terminates at the Mendota Pool, where the San Joaquin Exchange Contracts and other senior right holders divert water into their facilities.

**Statement on real-time operations and working with SWP:**

The CVP and SWP (the Projects) use a common water supply in the Central Valley of California. DWR and Reclamation have built various storage and conveyance facilities in the Central Valley in order to develop and deliver water supplies to senior water right holders, wildlife refuges and project contractors both north and south of the Delta. The Projects’ water rights are conditioned by the SWRCB to protect the beneficial uses of water within each respective project and jointly for the protection of beneficial uses in the Sacramento Valley and the Sacramento-San Joaquin Delta Estuary.

The COA, signed in 1986, defines the project facilities and their water supplies, sets forth procedures for coordination of operations, identifies formulas for sharing joint responsibilities for meeting in-basin needs, Delta standards and other legal uses of water, identifies how unstored flow will be shared, creates a framework for exchange of water and services between the Projects, and provides for periodic review of the agreement. This coordination includes coordination of Delta diversions and upstream reservoir releases between the CVP and SWP.

Reclamation and DWR coordinate on a daily basis to determine needed Delta outflow for water quality, reservoir release flows necessary to meet in-basin demands, schedules for Delta pumping

and joint use of the San Luis Unit facilities, and for the use of each other's facilities for pumping and conveyance.

The accounting framework of the COA provides the mechanism for determining the daily responsibility of each project for Delta flow requirements; however, real time operations dictate actions. For example, conditions in the Delta can change rapidly. Weather conditions combined with tidal action can quickly affect Delta salinity conditions, and therefore, the Delta outflow required to maintain joint standards. If, in this circumstance, it is decided the reasonable course of action is to increase upstream reservoir releases, then the response may be to immediately release water stored at Folsom Lake. Lake Oroville water releases require about three days to reach the Delta, while water released from Shasta Lake requires five days to travel from Keswick Dam to the Delta. As water from the other reservoirs arrives in the Delta, Folsom releases are typically adjusted downward. Any imbalance in meeting each Project's shared obligation would be captured by the COA accounting and adjusted as the season progresses.

Reservoir release changes are one means of adjusting to changing in-basin conditions. Increasing or decreasing project exports can also immediately achieve changes to Delta outflow. As with changes in reservoir releases, imbalances in meeting each Project's shared obligations are captured by the COA accounting.

**Statement on Contracts:**

I oversee Reclamation's annual process for allocating water to its water service contractors. The allocation process typically occurs from February through May, potentially longer if hydrologic conditions change. Each month beginning in February, Reclamation utilizes the forecasted runoff prepared by DWR to develop a forecast of water available for CVP operations. This operations forecast evaluates the monthly operation of the CVP through the water year, considering compliance with the current laws, regulations, and objectives that apply to the CVP, including D-1641 (and other water rights permit terms and conditions), CVPIA mandates, the Trinity Division Record of Decision, the 2008 U.S. Fish and Wildlife Service BiOp, the 2009 National Marine Fisheries Service BiOp, and obligations to senior water right holders. After meeting all regulatory criteria and obligations in this forecast process, Reclamation determines the project water supply available for delivery to water service contractors. Reclamation's initial allocations are typically made in February and can be adjusted throughout the year to reflect changing hydrology, regulatory conditions or other factors.

The Delta- Mendota Canal (DMC) serves CVP contractors south of the Delta. Reclamation delivers water to the DMC contractors for agricultural and urban (municipal and industrial) purposes. Since 2008, allocations to CVP South of Delta contractors for agricultural purposes have been far less than 100% of their contract totals each and every year. Most recently, from 2012 through 2015, those allocations have been only 40%, 20%, 0%, and 0% of contract totals, respectively. Allocations to South of Delta contractors for urban purposes have been less than 100% in all but one year since 2008. In 2014, due in large part to drought and poor hydrology, South of Delta urban contractors received a 50% allocation, and in 2015, they received only a 25% initial allocation. (DOI-8)<sup>i</sup>

**Statement on how Reclamation intends to operate with the new points of diversion:**

As previously stated, Reclamation operates the CVP pursuant to statute, regulations, permit terms and conditions and contractual obligations that affect the timing and amount of water that may be available for various uses. These include requirements and operating criteria contained in CVPIA, D-1641 and other SWRCB orders, and implementation of the 2008/09 Biological Opinions.

With the addition of the new points of diversion, Reclamation will continue to coordinate with DWR, NMFS, U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, SWRCB, and other operations groups in managing and operating the CVP in a manner that is protective of other water users and listed species, consistent with Reclamation's authorities. The new points of diversion may add flexibility to Project operations, but will also not foreclose the coordinated use of the current south of Delta facilities to deliver water south of the Delta. There are many tools in the tool box for addressing real-time issues and we intend to operate the system, including use of the NDD, in a coordinated fashion to meet project obligations.

I am aware of the modeling of Project operations to support the petition before the Board. In this modeling, it is anticipated that the north Delta diversion points would be preferred in the winter and spring months during higher flow periods in the Sacramento River. Given the operational range set forth in the Project Description testimony, it is anticipated that the new diversion points can be operated in a manner that will not impede Reclamation's ability to meet its requirements and may add flexibility to the coordinated operations of the projects.

**Statement on support of SWP testimonies:**

Reclamation has reviewed the DWR testimonies and agrees with their characterizations of the project operations.

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<sup>i</sup> A true and correct copy of "Summary of Water Supply Allocations" for the CVP is attached hereto as DOI-8.