

BiOps, Voluntary Agreements and Recovery Planning for Fish and Wildlife

The Sacramento River Basin

October 22, 2019

Background

The Bureau of Reclamation (Reclamation) has recently completed consultations under the federal Endangered Species Act (ESA) with the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) regarding the coordinated long-term operations of the Central Valley Project (CVP) and the State Water Project (SWP). As part of this process, the federal fishery agencies each issued a Biological Opinion (the 2019 BiOps), in which the agencies each found that the proposed long-term operations of the CVP and SWP do not jeopardize the continued existence of listed salmon and delta smelt in the Bay-Delta watershed. Under the requirements in the new 2019 BiOps and other changes to Reclamation's proposed CVP operations, the CVP and SWP will be operated in a modern way that serves water for multiple benefits throughout California.

Most notably, the new 2019 BiOps change the flows for water previously required by FWS and NMFS under their previous 2008/09 BiOps, which had committed more than 900,000 acre-feet of water from the CVP/SWP project operations to flow through and out of the Delta to San Francisco Bay. Despite the additional Delta outflow requirements during the past decade, neither salmon, delta smelt, nor water supply reliability in the Bay-Delta watershed have improved—in fact, they all declined. Reclamation's proposed CVP operations and the new 2019 BiOps include a new approach where the flows have been re-managed to emphasize operational flexibility, real-time monitoring and adaptive management strategies, based on the best scientific data available that the agencies have determined will improve conditions for salmon and smelt.

Importantly, as part of the consultation process and Section 4004 of the bipartisan 2016 Water Infrastructure Improvements for the Nation (WIIN) Act, the federal agencies received input and comments from public water agencies that contract for deliveries of water from the CVP and SWP, and from other stakeholders. This input offered a water management approach that emphasizes the best contemporary science in the new 2019 BiOps designed to improve conditions for fish and wildlife, as well as collaboration to advance these improvements.

How does this apply to the Sacramento River Basin?

Although most of the provisions in the 2019 BiOps are focused on Delta operations, the new 2019 BiOps contain several provisions specific to the Sacramento River Basin that focus on modified temperature management on the American and Sacramento Rivers for salmon and steelhead. At Shasta Reservoir on the Sacramento River, there will be a tiered operational approach that allows for strategically selected water temperature objectives designed to foster egg incubation through desired water temperatures. At Folsom Reservoir on the American River, the 2019 BiOp includes an updated and improved American River flow schedule that conserves water in Folsom Reservoir to improve lower American River temperatures for salmonids. Importantly, the new 2019 BiOps will provide better cold water pool management for incubating salmon than the previous BiOps, which will benefit salmon in many years. The 2019 BiOps will also accelerate restoration on Battle Creek for salmon.

What is the relation of the new 2019 BiOps to the Voluntary Agreements?

Water resources managers in the Sacramento River Basin have committed between 250,000 and 300,000 acre-feet of [functional flows](#) to the Delta for fifteen years as part of the ongoing [Voluntary Agreement](#) (VA) efforts within the State Water Resources Control Board's Bay-Delta Water Quality Control Plan update process. Under the VAs, this water will be added to the Delta in dry, above normal and below normal years based on annual hydrology. These additional flows will be added independently of, but be both supportive of and in concert with, the requirements in the new BiOps. In other words, this VA water will be made available to the Delta for the next fifteen years under the terms of the VAs in a manner that: 1) addresses water temperature management objectives in the BiOps for incubating salmon and steelhead on the upper Sacramento and American Rivers (i.e., optimizing the timing of cold-water releases from Shasta and Folsom Reservoirs); and 2) is timed to integrate with habitat and improve conditions for fish and wildlife in both the rivers and the Delta, such as the North Delta Arc.

How will this affect the Sacramento Valley Salmon Recovery Program?

All these actions are designed to improve conditions for salmon in the Sacramento River Basin. Sacramento Valley water resources managers, working with the federal and state agencies, various conservation partners, and landowners are implementing a [Salmon Recovery Program](#) to address all life-cycles of salmon on the upper, middle and lower parts of the rivers in the Sacramento River Basin. This includes integrating the VA flows described above, as well as other flows that have already been [re-managed](#) in the Sacramento River Basin, with various habitat enhancement projects ([Appendix A10](#), see pages A-205-210). The Salmon Recovery Program is designed to implement NMFS' Recovery Plan adopted under the ESA, NMFS' Species in the Spotlight program, and the state's Salmon Resiliency Strategy. Importantly, these salmon efforts are generally being pursued under the recovery planning provisions of the ESA through broad collaboration and a "fix it" mindset. Substantial progress has been made through recovery planning and these [New Approaches to Implement the Endangered Species Act](#). These recovery efforts will continue as part of the Salmon Recovery Program and will likely [be catalyzed by the VAs](#). The new 2019 BiOps will improve cold water pool management, help reactivate floodplains (see below), and accelerate restoration on Battle Creek—all to help recover salmon.



What about Birds and the Pacific Flyway?

Water resources managers in the Sacramento River Basin, working with refuge managers, landowners and conservation organizations, have successfully provided water supplies for birds and

the Pacific Flyway. This includes maximizing water deliveries for the mosaic of refuges, ricelands and managed wetlands. These efforts will continue to further the implementation plan for the [Central Valley Habitat Joint Venture](#).

Will the Delta Smelt Food Program continue?

Yes, as this program has been very successful. As part of the state's Delta Smelt Resiliency Strategy, water resources managers continue to work with landowners on the west-side of the Sacramento River Basin, in coordination with the state and federal agencies, to implement the Delta Smelt food program in the Yolo Bypass and northern Delta at a time when biologists believe the program will help smelt. This will be coordinated with the new real-time monitoring and operations for Delta Smelt.

Will all of these processes help reactivate our floodplains in the Sacramento River Basin?

Yes, [reactivating our floodplains](#) is a key overarching program to improve conditions for fish and wildlife in the Sacramento River Basin and the Delta. The efforts to reactivate floodplains for multiple benefits are central to all these programs and certain elements are incorporated in BiOps (e.g., Fremont Weir and other Yolo Bypass projects); the Voluntary Agreements (various projects in the Sutter and Yolo Bypasses) and the fish and bird recovery planning programs.

Will there be ongoing collaborative science?

Yes, water resources managers are working closely with scientists at academic institutions, federal and state agencies, and conservation organizations to learn from modern science that will help improve fish and wildlife in the Sacramento River Basin. This includes science programs on the major rivers, a new coordinated Delta science program as part of the VAs, as well as emerging science on floodplain reactivation, addressing each life cycle for salmon recovery, birds along the Pacific Flyway, and the listed Giant Garter Snake.

Are there freshwater ecosystem budgets in the Sacramento River Basin?

Yes, a full description is available at [Freshwater Ecosystem Water Budgets in the Sacramento River Basin](#).

Is water in the Sacramento River Basin managed for multiple benefits?

Water resources managers in the Sacramento River Basin are serving water for [multi-benefits](#), including farms, multiple species of fish and birds, cities and rural communities, hydropower and recreation. This water management is the hallmark for the Sacramento River Basin and what makes the Sacramento River Basin special.

Where do I get more information on the relation between these various programs?

For more information on the BiOps and the relation to Voluntary Agreements in the Sacramento River Basin, please contact:

- **American River:** Andy Fecko (Placer County Water Agency) 530.308.4507.
- **Sacramento River:** Thad Bettner (Glenn-Colusa Irrigation District) 530.588.3450 or Lewis Bair (Reclamation District 108) 530.979.1536.

