

## California Bay-Delta Water for Fish 'Scientifically Justified'

WASHINGTON, DC, March 19, 2010 (ENS) - Controversial restrictions on pumping water from the California Bay-Delta to prevent the extinction of endangered fishes are "scientifically justified" for the most part, finds a report released today by the National Academy of Sciences. Scarce in recent dry years, water has been pumped out of the San Francisco Bay/Sacramento-San Joaquin Delta to supply the drinking and irrigation needs of millions of people elsewhere in California.

In 2008 and 2009, the U.S. Fish and Wildlife Service and National Marine Fisheries Service issued biological opinions under the Endangered Species Act that required reduced water diversions from the Delta to prevent the extinction of delta smelt, Central Valley chinook salmon and steelhead, and green sturgeon.

Restrictions on diverting water in the Delta that have been in effect since 2008 have reduced water deliveries to Central Valley farmers and Southern California users.

Congress and the Interior Department asked the Academy's National Research Council to provide a scientific evaluation of actions proposed in the two biological opinions after agricultural interests and environmental groups filed legal actions, lobbied Congress, and attempted to persuade the public to their points of view.

The evaluation report points to "uncertainty" in the proper timing for pumping the water to cities and irrigators, indicating that with flexibility and continued negotiations, more of the scarce water could be appropriated for human use without further endangering the imperiled fishes.

"The basis for the specific environmental triggers that would indicate when water diversions should be reduced is less well-supported by scientific analyses," the committee wrote.

"Uncertainty in the effect of the triggers should be reduced, and more-flexible triggers that might require less water should be evaluated."

This "uncertainty in the justifications used to manage federal pumping restrictions" means that the two biological opinions should be implemented with greater flexibility, said U.S. Senator Dianne Feinstein, a California Democrat who chairs the Senate Appropriations Subcommittee on the Interior, the Environment and Related Agencies.

Senator Feinstein, who secured \$750,000 to fund the study, called on federal water management personnel to use real-time monitoring and assessment to determine opportunities for greater water supply benefits for human use.



Senator Feinstein pointed to the report's conclusion that, "The effectiveness of the annual water export restrictions in April and May prescribed by the biological opinion issued by the National Marine Fisheries Service is 'less certain' than maintaining flows in the San Joaquin River and that the existing adaptive management practices are insufficient and should be improved."

The report recommends that "continued negotiation offers opportunities to reduce water use" for fish protection "without great risk to salmon."

Based on this recommendation, Feinstein urged federal management officials "to take immediate action to implement the biological opinions with additional flexibility wherever possible, particularly with respect to the likely water limitations this April and May, so that we can ensure that any federal actions to restrict water supplies are absolutely necessary."

The confluence of the Sacramento River, left, and the San Joaquin River, center. (Photo by Gerard Menut)

The San Francisco Bay/Sacramento-San Joaquin Delta in central California is the largest estuary on the western coast of the Americas. The Delta spans five counties in northern California at the confluence of the Sacramento and San Joaquin rivers.

Delta water sustains more than 500,000 people who live in the Delta, more than 300,000 acres of agriculture within the Delta, 750 plant and animal species and seven million irrigated agriculture acres throughout the state.

About two-thirds of all Californians, an estimated 23 million people, obtain at least some of their water from the Delta. This means the Sacramento-San Joaquin Delta is the single largest source of California's drinking water.

California Natural Resources Agency Secretary Lester Snow said the report's findings point to the need for further work, flexibility in the implementation of the regulations and potential modification of the biological opinions.

But conservationists such as Jeff Miller with the Center for Biological Diversity, one of the litigating groups, say the report shows water pumping restrictions are justified and necessary. "The National Academy of Sciences report confirms that freshwater flows are essential to endangered fish, the fishing jobs dependent upon healthy salmon runs, and the whole ecosystem."

The committee also recommended the integration of the two biological opinions, which between them contain 78 distinct actions to protect the Delta smelt, salmon, steelhead and green sturgeon. The scientists said integration "is necessary to provide an objective determination of the net effect of all their actions on the listed species and on water users."

The report concludes that other factors besides lack of water are harming the fishes. The "adverse effects of all the other stressors on the listed fishes are potentially large," the report states. These

other stressors include pesticides, ammonia discharge, predators, and structures on rivers that block access to fish spawning habitat.

The report also questioned the proposed action to establish 8,000 acres of tidal habitat for the Delta smelt and found that "the scientific justification provided in the biological opinion is weak ... and is inadequate to support the details of the implementation of this action."

But the Center for Biological Diversity maintains that the whole ecosystem is becoming dysfunctional because too much water is being pumped out of the Delta to serve human needs.

"Unsustainable water exports, in combination with the effects of dams, invasive species, pesticides and water pollution, and other stressors, have caused the collapse of nearly all native open-water and migratory fish populations in the San Francisco Bay-Delta, such as runs of chinook salmon and steelhead trout, white and green sturgeon, delta smelt, longfin smelt, and Sacramento splittail," Miller said.

"These fish declines correlate with the past decade of record water diversions at federal and state pumps in the Delta and have resulted in \$270 million in economic losses and 2,700 lost fishing jobs in 2009 alone with the closure of the state salmon fishery," he said.

Senator Feinstein noted that "nothing in this report indicates that there is a need to enforce more rigorous pumping restrictions."

The committee reported that it was "difficult to ascertain the extent to which the collective watershed and tributary actions will appreciably reduce risks to the fishes within the watershed or throughout the entire river system" and recommended a quantitative framework be created to assess survival.

The committee considered whether any additional actions not included in the biological opinions might have the potential to provide equal or greater protection for the fishes than the current requirements, while costing less in terms of water availability for other uses.

The committee found none that had received enough documentation or evaluation, but said they will consider alternatives in more detail in its second report.

The entire assessment will be completed in this second report, due out next year.

Copyright Environment News Service (ENS) 2010. All rights reserved.