



Pacific Fishery Management Council

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Dorothy M. Lowman, Chair | Donald O. McIsaac, Executive Director

December 4, 2015

The Honorable Jared Huffman
United States House of Representatives
1630 Longworth House Office Building
Washington, D.C. 20515

The Honorable Mike Thompson
231 Cannon Office Building
Washington, D.C. 20515

Dear Mr. Huffman and Mr. Thompson:

Thank you for your letter of August 20, 2015 requesting Pacific Fishery Management Council comment on legislation related to the current drought situation in California, and its potential impacts on fisheries and fishing communities. The Council provided brief comments in a letter dated September 28, 2015, and now provides our more detailed insights. Due to the complexity of Central Valley water issues and the existing suite of introduced legislation, a detailed analysis of the potential impacts to salmon is an enormous endeavor that would require considerable time to complete. This letter is a general, qualitative review containing relevant findings

First, we address the House and Senate bills that call primarily for increased water conservation.

As you know, **HR 2983/S 1837: Drought Recovery and Resilience Act of 2015** (Rep. Huffman/Senator Boxer) focuses on efficient use of current water supplies and would provide emergency funding to improve water supply and reliability, combat upstream water theft on Federal lands, help homeowners reduce their water use, provide emergency funding to stretch existing water supplies, support existing water infrastructure programs, improve desalination technology, and expand water recycling.

Measures such as these, which increase the state's future resilience in the face of drought, have the potential to improve favorable freshwater conditions for fish stocks that are vital to West Coast fisheries. HR 2983 also calls on increased communication and coordination between state and Federal agencies regarding water management and its implications for salmon, particularly during the driest years. This would clearly be beneficial to the stocks and the communities that depend on them.

The Council remains concerned about the fishery and habitat implications of desalination plants. Modern desalination plants take in large volumes of sea water, pass it through membranes to separate freshwater from salt, and return the resulting saline brine to the ocean. This disposition

of hyper-saline water has impacts that will need to be studied further and mitigated on a case-by-case basis.

In addition, seawater intakes may be either direct or indirect. Direct or “open water” intakes pull seawater straight from the ocean, while indirect intakes, which are used less often, take water from subsurface sources (beneath the sea floor or beach) and virtually eliminate marine life impacts associated with direct intakes. The Pacific Institute’s review of desalination plant impacts¹ notes that that two gallons of sea water is generally withdrawn for every gallon of freshwater produced; and this sea water includes phytoplankton, fish, fish eggs, larvae and invertebrates. This impingement of sea life is a concern and may represent a substantial loss of potential biological productivity. Various measures are available to reduce these impacts and must be considered as desalination technology moves forward.

S 1894: California Emergency Drought Relief Act (Boxer/Feinstein) aims to move water efficiently to areas where it is most needed, consistent with environmental laws and biological opinions. The bill authorizes funds to implement National Marine Fisheries Service’s Endangered Species Act (ESA) recovery plan, a tool to provide habitat and flow restoration throughout the Sacramento and San Joaquin basins. Funds are also authorized to trap and barge fish to reduce migration mortality throughout the Delta; to create additional spawning habitat; remove invasive species; improve conveyance of water to refuges; and to manage the water system more precisely using updated science and tools. This bill, like HR 2983, emphasizes water conservation and recycling, encourages research into desalination technology, and encourages water recycling, reclamation, conservation, and reuse.

The bill promotes the building of new reservoirs or increasing the capacity of existing reservoirs, which may increase the supply of water and thus improve our ability to maintain adequate flows and temperatures for fish, but also has the potential of adversely affecting salmon habitat and migration. The bill calls for expedited review of water transfers but ensures that these actions are consistent with environmental laws. In addition, Delta Cross-Channel Gates may only be opened for additional time if doing so remains consistent with water quality-related orders issued by the State Water Resources Control Board. However, water quality is only one aspect related to the operation of Delta Cross-Channel Gates. Their operation is an important issue for juvenile outmigration. The bill includes a provision to allow limited Delta water transfers in April and May so communities and farms can make up for reduced deliveries. National Marine Fisheries Service and U.S. Fish and Wildlife Service, in providing technical assistance on the bill, have stated that these safeguards ensure the provision is in compliance with environmental laws and biological opinions. Any time more water is pumped from the Delta, that pumping must remain consistent with the ESA and biological opinions.

¹ <http://pacinst.org/wp-content/uploads/sites/21/2013/12/desal-marine-impacts-full-report.pdf>

Valadao Bill (HR 2898)

The Western Water and American Food Security Act of 2015 (HR 2898) appears primarily aimed at increasing water for agricultural interests at the expense of fish by permanently weakening Federal and state endangered species protections. A press release by Rep. Valadao² notes that “The dedication of vast quantities of water to protect certain species of fish listed under the Endangered Species Act (ESA) is a significant obstacle hindering water delivery in Central and Southern California.” Such a rollback of environmental protections could do irreparable harm to West Coast fish stocks, the recreational and commercial fishing industry, and the multitude of businesses that rely on them. These impacts could particularly affect fisheries in California and Oregon, which commonly encounter salmon originating in California. Any negative impacts on California salmon runs could therefore constrain Oregon and Washington commercial and recreational fisheries.

The Valadao bill, at 174 pages, contains many provisions that could be detrimental to salmon. We focus on our primary findings below:

- Sec. 313 repeals the San Joaquin River Restoration Settlement Act and deems certain fish and game requirements to be satisfied by the existence of a warm water fishery in the San Joaquin River. Repealing this Act would cause irreparable harm to native salmon runs, possibly resulting in the San Joaquin running completely dry during most years. Millions of dollars have been spent over decades to restore the San Joaquin River; overturning this investment in time, money, and public trust would result in the destruction of reintroduced salmon runs, resulting in further losses for fishing communities and to the general public. In general, HR 2898 would divert the fresh water that is required to maintain millions of dollars in habitat restoration investments across California.
- Sec. 302 requires the U.S. Dept. of Agriculture (USDA), Dept. of Commerce, and Dept. of Interior to approve projects to provide the maximum water supplies practicable to all individuals or districts that receive Central Valley Project (CVP) water during drought and adopts a 1:1 inflow to export ratio under specified conditions, as measured by a three-day running average at Vernalis between April 1 and May 31. This would allow all the fresh water inflow from the San Joaquin River to be exported in April-May, which would further degrade Delta water quality, and would expand water transfers well into the spring and fall, when threatened and endangered salmon and steelhead are most sensitive to modified flows.
- Sec. 303 directs the Departments of Commerce and Interior to ensure that the Delta Cross Channel Gates remain open to the maximum extent practicable, timed to maximize the peak flood tide period and provide water supply and water quality benefits for the duration of a California drought emergency declaration. In general, the operation of the cross-channel gates, and the issue of negative flows are critical to salmon viability. The cross channel gates are an important issue for juvenile outmigration, and with the many

² <http://valadao.house.gov/news/documentsingle.aspx?DocumentID=398031>

Sacramento salmon runs, outmigration is nearly year-round. Opening the gates slows migration and diverts fish to the interior delta rather than out to the Bay. The Golden Gate Salmon Association has noted:

The Cross Channel Gates are located on the Sacramento River at the City of Walnut Grove. When the Gates are open, large quantities of fresh Sacramento River water are pulled through the gates and go down the north and south branches of the Mokelumne River which lead to the State and Federal export pumps. These pumps deliver water to the San Joaquin Valley and to Southern California. When they are open, millions of baby salmon are pulled through the gates into the Central Delta. This entrainment is near 100% fatal to the salmon. Once they get into the Central Delta where the pull of the pumps is strong they almost never get out. Most are lost to predators or are killed at the pumps themselves. When the ESA-listed winter and spring run smolts are migrating, the National Marine Fisheries Service Biological Opinions require that the gates be closed. This helps, but Georgiana slough also allows millions to be entrained. The fall run and the late-fall run smolts which migrate later in the spring bear the full entrainment impact of the open gates. The best solutions to this problem are to reduce the export pumping in the spring, keep the Cross Channel Gates closed until June 15th, and seek barriers that can keep the smolts out of Georgiana Slough.³

- Several sections aim to “streamline” and either curtail or expedite the environmental review process (Sec. 305, 804, 805, others). Other sections require agencies to meet unrealistic environmental review deadlines that guarantee incomplete review, including curtailed public input of environmental impacts of dams and other water projects (Sec 314, 401, 705, others).

Sec. 307 requires the Departments of Agriculture, Commerce, and Interior to authorize the CVP and the State Water Project (SWP) to operate (within ranges permitted by applicable environmental laws) at levels that result in negative Old and Middle River flows at -7,500 cubic feet per second daily average for 56 cumulative days after October 1. The fall timing of this provision may avoid periods of higher flows in winter and spring when many juvenile salmon outmigrate, however Old and Middle River flows are important for juvenile outmigration and negative flows have the undesirable effect of drawing fish towards the pumps.

- Sec. 309 exempts certain operating criteria adjustments and actions to address water shortages from mitigation measure requirements during drought years. In addition, any mitigation measures imposed would need to be based on quantitative data and required only to the extent that such data demonstrates actual harm to species. This provision fails

³ Golden Gate Salmon Association. 2013. California Central Valley Salmon: Their Status, Problems and Needs. <http://goldengatesalmonassociation.com/wp-content/uploads/2013/09/Cent-Valley-Salmon-GGSA.pdf>

to consider impacts to salmon from these adjustments and actions, and imposes data collection requirements that are not achievable.

- Sec. 501 requires additional water to be made available for delivery to SWP contractors to offset any losses that result if a California Dept. of Fish and Wildlife consistency determination reduces water supply to the SWP as compared with water supply available under the smelt and the salmonid biological opinions. This provision essentially places water rights above ESA protections, ignores coordination between state and Federal water projects, and weakens state endangered species protections by promising more water from Federal sources to make up for state water delivery restrictions required under California ESA (See also Sec 503).
- Sec. 503(c) states that rights and obligations under water contracts shall not be modified or amended, “including the obligation to satisfy exchange contracts and settlement contracts prior to the allocation of any other CVP water.” This section modifies the priority of refuge water supplies provided under Section 3406(d) of the CVPIA to make them subordinate to agricultural contractors. (The purpose of that section of the CVPIA was to make refuges an equal priority with other contractors.) This would make it more difficult for refuges to receive water during dry years, and could threaten funding for the refuge water supply program.
- Sec. 604 directs Interior to implement an updated plan under the CVPIA to increase the yield of the CVP by the amount dedicated to fish and wildlife purposes. It includes a potential amendment that, among other things, would reduce by 25 percent the annual CVP yield dedicated to fish, wildlife, and estuary health if the Bureau of Reclamation does not increase CVP yield by 800,000 acre-feet within five years. This would penalize the Bureau of Reclamation if they fail to implement an infeasible CVPIA water replacement plan—one that fails to recognize that the state has likely reached its limit in regard to new water development.
- Section 605 ordains that Federal agencies not distinguish between naturally- and hatchery-spawned anadromous fish species when making endangered species determinations. This is a complex decision that should not be made without thorough scientific analysis.
- Sec. 608 prohibits Interior, in operation of the CVP’s Trinity River Division, from making releases from Lewiston Dam in excess of the volume for each water-year type (i.e., critically dry, dry, normal, wet, extremely wet) required by Interior’s record of decision in the Trinity River Mainstem Fishery Restoration Final Environmental Impact Statement/Environmental Impact Report dated December 2000. This provision would prohibit water releases into the Trinity River needed to prevent a repeat of the massive salmon die-off in the Klamath River that occurred in 2002. The Council has repeatedly requested such water releases to ensure the successful migration of Klamath Basin salmon, which are vitally important to West Coast commercial, tribal, and recreational fisheries.

- Sec. 610 redefines “anadromous fish” under the CVPIA to restrict the definition to only native stocks of salmon (including steelhead) and sturgeon that were present in the Sacramento and San Joaquin Rivers as of October 30, 1992, and that ascend those rivers and their tributaries to reproduce after maturing in San Francisco Bay or the Pacific Ocean, and exclude striped bass and American shad. The Friant Dam, completed in 1943, completely blocks passage for anadromous fish; therefore, redefining anadromous fish using the definition laid out in Sec. 610 would exclude any stocks present before the dam was put in place.

In addition to these concerns, the bill contains other issues that may have adverse effects on fish stocks, such as infringing on state water law, failing to protect groundwater, and undermining potential Wild and Scenic River protections for parts of the San Joaquin River.

In general terms, West Coast fisheries and coastal communities rely on a healthy level of salmon production from the Central Valley, of which water and salmon from the San Joaquin basin play an important role. Freshwater habitat and migratory conditions are critical for salmon populations, and careful water management throughout the Central Valley is essential in optimizing the size of salmon runs as required under the Magnuson-Stevens Act, and the economic benefits to fisheries and fishing communities that depend on them. Particularly in drought years, the Pacific Council believes that these bills are likely to have negative effects on salmon productivity and the fishing industry compared to the status quo and improvements that might be forthcoming in the future.

Thank you again for your request to comment on these bills. Should you have any questions or concerns, please do not hesitate to contact us.

Sincerely,



D.O. McIsaac, Ph.D.
Executive Director

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Cc: The Honorable Senator Dianne Feinstein
The Honorable Senator Barbara Boxer
The Honorable Representative Bob Bishop, Chairman, House Committee on Natural Resource
The Honorable Lisa Murkowski, Chair, Senate Committee on Energy and Natural Resources
Pacific Fishery Management Council Members
PFMC Habitat Committee
PFMC Salmon Advisory Subpanel