

Subcommittee on Water, Power and Oceans

John Fleming, Chairman

Hearing Memorandum

April 18, 2016

To: All Subcommittee on Water, Power and Oceans Members

From: Majority Committee Staff
Subcommittee on Water, Power and Oceans (x58331)

Hearing: Legislative Hearing on H.R. 4582 (Rep. Jeff Denham, R-CA), To exclude striped bass from the anadromous fish doubling requirement in section 3406(b)(1) of the Central Valley Project Improvement Act, and for other purposes.
April 20, 2016, at 10:00 a.m. in 1324 Longworth

H.R. 4582 (Rep. Jeff Denham, R-CA), “Save our Salmon Act”

Bill Summary:

H.R. 4582 amends the Central Valley Project Improvement Act (CVPIA or P.L. 102-575) to exclude non-native striped bass from the federal goal of doubling the natural production of anadromous fish in California. H.R. 4582 is a bipartisan bill designed to help reduce salmon predation from non-native striped bass in California.

This one panel hearing will also include consideration of two other bills.

Cosponsors:

Reps. Jim Costa (D-CA), John Garamendi (D-CA), and Tom McClintock (R-CA).

Invited Witnesses (listed in alphabetical order):

Dr. Charles Hanson

Senior Fishery Biologist
Hanson Environmental, Inc. and
The State Water Contractors
Walnut Creek, California

Mr. Tom Iseman

Deputy Assistant Secretary for Water and Science
U.S. Department of the Interior
Washington, D.C.

Background:

The United States West Coast is home to a number of native and endangered or threatened fish species. The latter includes 28 subpopulations of steelhead and salmon in California and the Pacific Northwest that have been listed by the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) under the Endangered Species Act (ESA). Although some salmon runs have experienced record and near record returns in certain areas, many continue to face a number of "stressors" that complicate their survivability, recovery and eventual delisting.¹ According to NMFS, non-native species are the cause of endangerment for **48 percent** of the species listed under the federal ESA. Caspian terns, the northern pikeminnow, cormorants, sea lions and striped bass are a few of the native and non-native predatory species on the West Coast that prey on salmon fisheries.²

Striped bass, which are indigenous to the East Coast of the United States, were first introduced into California's Sacramento-San Joaquin Bay-Delta (Bay-Delta) in 1879 for sport and recreational fishing purposes.³ Some believe this species poses a direct predatory threat to ESA-listed fish species in the Bay-Delta.⁴ Specifically, the California Department of Fish and Wildlife (DFW) has estimated that striped bass may consume upwards of 25-50 percent of winter and spring run Chinook salmon.⁵ In its 2009 Recovery Plan for winter and spring run Chinook salmon, NMFS identified predation of juvenile salmon as one of the primary specific stressors to these species and advocated for reducing the population of striped bass to "prevent extinction or to prevent the species from declining irreversibly."⁶ In addition, as part of the Federal Energy Regulatory Commission's relicensing of Don Pedro Dam, a February 2013 report found that **93 percent** of juvenile salmon smolts perished on the Tuolumne River from striped bass predation.⁷ The health of some of these salmon species has an impact on the allocation of water for different purposes in California.

In a February 10, 2016, Water, Power and Oceans Subcommittee oversight hearing on predation, a NMFS witness testified that some salmonid populations in California are "extremely low due to an abundance of striped bass."⁸ One focus of that hearing was the CVPIA's goal to at least double the natural production of anadromous fish, which includes both salmon and one of their non-native predators, striped bass. As a result,



Juvenile salmon removed from the stomach of a striped bass.

Source: Hanson Environmental, Inc.

¹ https://www.usbr.gov/mp/cvo/OCAP/sep08_docs/Appendix_V.pdf

² http://www.nmfs.noaa.gov/stories/2014/07/7_21_14invasive_species_and_salmon.html

³ http://www.dfg.ca.gov/fish/Resources/Striped_Bass/History.asp

⁴ <http://www.prnewswire.com/news-releases/invasive-striped-bass-identified-as-major-threat-to-salmon-85535482.html>

⁵ <http://www.sustainabledelta.com/predation.html>

⁶ National Marine Fisheries Service. 2009. Public Draft Recovery Plan for the Evolutionary Significant Units of Sacramento River Winter-run Chinook Salmon and Central Valley Spring-run Chinook Salmon and the Distinct Population Segment of Central Valley Steelhead. Sacramento Protected Resources Division, October 2009.

⁷ http://www.donpedro-relicensing.com/Documents/P-2299_DP_ISR_W-AR-07_PredationStdyRept_130117.pdf

⁸ Testimony of Mr. Will Stelle, West Coast Regional Administrator for the National Marine Fisheries Service, before the House Water, Power and Oceans Subcommittee, February 10, 2016, p.7.

Representative Denham introduced H.R. 4582 to eliminate this ongoing federal conflict between protecting striped bass and endangered salmon in California

Major Provisions/Analysis of H.R. 4582:

Section three amends section 3406(b)(1) of the CVPIA to exempt striped bass from the CVPIA's requirement to double the natural production of anadromous fish species.

Cost:

The Congressional Budget Office has not completed a cost estimate of this bill at this time.

Administration Position:

Unknown.

Effect on Current Law (Ramseyer):

Showing Current Law as Amended by H.R. 4582

[new text highlighted in yellow]

Central Valley Project Improvement Act

[Title XXXIV of Public Law 102-575]

SEC. 3406. FISH, WILDLIFE AND HABITAT RESTORATION.

(a) AMENDMENTS TO CENTRAL VALLEY PROJECT AUTHORIZATIONS- Act of August 26, 1937- Section 2 of the Act of August 26, 1937 (chapter 832; 50 Stat. 850), as amended, is amended--

(1) in the second proviso of subsection (a), by inserting `and mitigation, protection, and restoration of fish and wildlife' after `Indian reservations,';

(2) in the last proviso of subsection (a), by striking `domestic uses;' and inserting `domestic uses and fish and wildlife mitigation, protection and restoration purposes;' and by striking `power' and inserting `power and fish and wildlife enhancement';

(3) by adding at the end the following: `The mitigation for fish and wildlife losses incurred as a result of construction, operation, or maintenance of the Central Valley Project shall be based on the replacement of ecologically equivalent habitat and shall take place in accordance with the provisions of this title and concurrent with any future actions which adversely affect fish and wildlife populations or their habitat but shall have no priority over them.'; and

(4) by adding at the end the following: `(e) Nothing in this title shall affect the State's authority to condition water rights permits for the Central Valley Project.'

(b) FISH AND WILDLIFE RESTORATION ACTIVITIES- The Secretary, immediately upon the enactment of this title, shall operate the Central Valley Project to meet all

obligations under State and Federal law, including but not limited to the Federal Endangered Species Act, 16 U.S.C. 1531, et seq., and all decisions of the California State Water Resources Control Board establishing conditions on applicable licenses and permits for the project. The Secretary, in consultation with other State and Federal agencies, Indian tribes, and affected interests, is further authorized and directed to:

(1) develop within three years of enactment and implement a program which makes all reasonable efforts to ensure that, by the year 2002, natural production of anadromous fish (except striped bass) in Central Valley rivers and streams will be sustainable, on a long-term basis, at levels not less than twice the average levels attained during the period of 1967-1991; *Provided*, That this goal shall not apply to the San Joaquin River between Friant Dam and the Mendota Pool, for which a separate program is authorized under subsection 3406(c) of this title; *Provided further*, That the programs and activities authorized by this section shall, when fully implemented, be deemed to meet the mitigation, protection, restoration, and enhancement purposes established by subsection 3406(a) of this title; *And provided further*, That in the course of developing and implementing this program the Secretary shall make all reasonable efforts consistent with the requirements of this section to address other identified adverse environmental impacts of the Central Valley Project not specifically enumerated in this section.

(A) This program shall give first priority to measures which protect and restore natural channel and riparian habitat values through habitat restoration actions, modifications to Central Valley Project operations, and implementation of the supporting measures mandated by this subsection; shall be reviewed and updated every five years; and shall describe how the Secretary intends to operate the Central Valley Project to meet the fish, wildlife, and habitat restoration goals and requirements set forth in this title and other project purposes.

(B) As needed to achieve the goals of this program, the Secretary is authorized and directed to modify Central Valley Project operations to provide flows of suitable quality, quantity, and timing to protect all life stages of anadromous fish, except that such flows shall be provided from the quantity of water dedicated to fish, wildlife, and habitat restoration purposes under paragraph (2) of this subsection; from the water supplies acquired pursuant to paragraph (3) of this subsection; and from other sources which do not conflict with fulfillment of the Secretary's remaining contractual obligations to provide Central Valley Project water for other authorized purposes. Instream flow needs for all Central Valley Project controlled streams and rivers shall be determined by the Secretary based on recommendations of the United States Fish and Wildlife Service after consultation with the California Department of Fish and Game.

(C) The Secretary shall cooperate with the State of California to ensure that, to the greatest degree practicable, the specific quantities of yield dedicated to and managed for fish and wildlife purposes under this title are credited against any additional obligations of the Central Valley Project which may be imposed by the State of California following enactment of this title, including but not limited to increased flow and reduced export

obligations which may be imposed by the California State Water Resources Control Board in implementing San Francisco Bay/Sacramento-San Joaquin Delta Estuary standards pursuant to the review ordered by the California Court of Appeals in *United States v. State Water Resources Control Board*, 182 Cal.App.3d 82 (1986), and that, to the greatest degree practicable, the programs and plans required by this title are developed and implemented in a way that avoids inconsistent or duplicative obligations from being imposed upon Central Valley Project water and power contractors.

(D) Costs associated with this paragraph shall be reimbursable pursuant to existing statutory and regulatory procedures.

(2) upon enactment of this title dedicate and manage annually eight hundred thousand acre-feet of Central Valley Project yield for the primary purpose of implementing the fish, wildlife, and habitat restoration purposes and measures authorized by this title; to assist the State of California in its efforts to protect the waters of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary; and to help to meet such obligations as may be legally imposed upon the Central Valley Project under State or Federal law following the date of enactment of this title, including but not limited to additional obligations under the Federal Endangered Species Act. For the purpose of this section, the term 'Central Valley Project yield' means the delivery capability of the Central Valley Project during the 1928-1934 drought period after fishery, water quality, and other flow and operational requirements imposed by terms and conditions existing in licenses, permits, and other agreements pertaining to the Central Valley Project under applicable State or Federal law existing at the time of enactment of this title have been met.

(A) Such quantity of water shall be in addition to the quantities needed to implement paragraph 3406(d)(1) of this title and in addition to all water allocated pursuant to paragraph (23) of this subsection for release to the Trinity River for the purposes of fishery restoration, propagation, and maintenance; and shall be supplemented by all water that comes under the Secretary's control pursuant to subsections 3406(b)(3), 3408(h)-(i), and through other measures consistent with subparagraph 3406(b)(1)(B) of this title.

(B) Such quantity of water shall be managed pursuant to conditions specified by the United States Fish and Wildlife Service after consultation with the Bureau of Reclamation and the California Department of Water Resources and in cooperation with the California Department of Fish and Game.

(C) The Secretary may temporarily reduce deliveries of the quantity of water dedicated under this paragraph up to 25 percent of such total whenever reductions due to hydrologic circumstances are imposed upon agricultural deliveries of Central Valley Project water; *Provided*, That such reductions shall not exceed in percentage terms the reductions imposed on agricultural service contractors; *Provided further*, That nothing in this subsection or subsection 3406(e) shall require the Secretary to operate the project in a way that jeopardizes human health or safety.

(D) If the quantity of water dedicated under this paragraph, or any portion thereof, is not needed for the purposes of this section, based on a finding by the Secretary, the Secretary is authorized to make such water available for other project purposes.

(3) develop and implement a program in coordination and in conformance with the plan required under paragraph (1) of this subsection for the acquisition of a water supply to supplement the quantity of water dedicated to fish and wildlife purposes under paragraph (2) of this subsection and to fulfill the Secretary's obligations under paragraph 3406(d)(2) of this title. The program should identify how the Secretary intends to utilize, in particular the following options: improvements in or modifications of the operations of the project; water banking; conservation; transfers; conjunctive use; and temporary and permanent land following, including purchase, lease, and option of water, water rights, and associated agricultural land.

(4) develop and implement a program to mitigate for fishery impacts associated with operations of the Tracy Pumping Plant. Such program shall include, but is not limited to improvement or replacement of the fish screens and fish recovery facilities and practices associated with the Tracy Pumping Plant. Costs associated with this paragraph shall be reimbursed in accordance with the following formula: 37.5 percent shall be reimbursed as main project features, 37.5 percent shall be considered a nonreimbursable Federal expenditure, and 25 percent shall be paid by the State of California. The reimbursable share of funding for this and other facility repairs, improvements, and construction shall be allocated among project water and power users in accordance with existing project cost allocation procedures.

(5) develop and implement a program to mitigate for fishery impacts resulting from operations of the Contra Costa Canal Pumping Plant No. 1. Such program shall provide for construction and operation of fish screening and recovery facilities, and for modified practices and operations. Costs associated with this paragraph shall be reimbursed in accordance with the following formula: 37.5 percent shall be reimbursed as main project features, 37.5 percent shall be considered a nonreimbursable Federal expenditure, and 25 percent shall be paid by the State of California.

(6) install and operate a structural temperature control device at Shasta Dam and develop and implement modifications in CVP operations as needed to assist in the Secretary's efforts to control water temperatures in the upper Sacramento River in order to protect anadromous fish in the upper Sacramento River. Costs associated with planning and construction of the structural temperature control device shall be reimbursed in accordance with the following formula: 37.5 percent shall be reimbursed as main project features, 37.5 percent shall be considered a nonreimbursable Federal expenditure, and 25 percent shall be paid by the State of California.

(7) meet flow standards and objectives and diversion limits set forth in all laws and judicial decisions that apply to Central Valley Project facilities, including, but not limited to, provisions of this title and all obligations of the United States under the Agreement Between the United States and the Department of Water

Resources of the State of California for Coordinated Operation of the Central Valley Project and the State Water Project' dated May 20, 1985, as well as Public Law 99-546.

(8) make use of short pulses of increased water flows to increase the survival of migrating anadromous fish moving into and through the Sacramento-San Joaquin Delta and Central Valley rivers and streams.

(9) develop and implement a program to eliminate, to the extent possible, losses of anadromous fish due to flow fluctuations caused by the operation of any Central Valley Project storage or re-regulating facility. The program shall be patterned where appropriate after the agreement between the California Department of Water Resources and the California Department of Fish and Game with respect to the operation of the California State Water Project Oroville Dam complex.

(10) develop and implement measures to minimize fish passage problems for adult and juvenile anadromous fish at the Red Bluff Diversion Dam in a manner that provides for the use of associated Central Valley Project conveyance facilities for delivery of water to the Sacramento Valley National Wildlife Refuge complex in accordance with the requirements of subsection (d) of this section. Costs associated with implementation of this paragraph shall be reimbursed in accordance with the following formula: 37.5 percent shall be reimbursed as main project features, 37.5 percent shall be considered a nonreimbursable Federal expenditure, and 25 percent shall be paid by the State of California.

(11) rehabilitate and expand the Coleman National Fish Hatchery by implementing the United States Fish and Wildlife Service's Coleman National Fish Hatchery Development Plan, and modify the Keswick Dam Fish Trap to provide for its efficient operation at all project flow release levels and modify the basin below the Keswick Dam spillway to prevent the trapping of fish. Costs associated with implementation of this paragraph shall be reimbursed in accordance with the following formula: 50 percent shall be reimbursed as main project features and 50 percent shall be considered a nonreimbursable Federal expenditure.

(12) develop and implement a comprehensive program to provide flows to allow sufficient spawning, incubation, rearing, and outmigration for salmon and steelhead from Whiskeytown Dam as determined by instream flow studies conducted by the California Department of Fish and Game after Clear Creek has been restored and a new fish ladder has been constructed at the McCormick-Saeltzer Dam. Costs associated with channel restoration, passage improvements, and fish ladder construction required by this paragraph shall be allocated 50 percent to the United States as a nonreimbursable expenditure and 50 percent to the State of California. Costs associated with providing the flows required by this paragraph shall be allocated among project purposes.

(13) develop and implement a continuing program for the purpose of restoring and replenishing, as needed, spawning gravel lost due to the construction and operation of Central Valley Project dams, bank protection projects, and other actions that have reduced the availability of spawning gravel and rearing habitat in the Upper Sacramento River from Keswick Dam to Red Bluff Diversion Dam,

and in the American and Stanislaus Rivers downstream from the Nimbus and Goodwin Dams, respectively. The program shall include preventive measures, such as re-establishment of meander belts and limitations on future bank protection activities, in order to avoid further losses of instream and riparian habitat. Costs associated with implementation of this paragraph shall be reimbursed in accordance with the following formula: 37.5 percent shall be reimbursed as main project features, 37.5 percent shall be considered a nonreimbursable Federal expenditure, and 25 percent shall be paid by the State of California.

(14) develop and implement a program which provides for modified operations and new or improved control structures at the Delta Cross Channel and Georgiana Slough during times when significant numbers of striped bass eggs, larvae, and juveniles approach the Sacramento River intake to the Delta Cross Channel or Georgiana Slough. Costs associated with implementation of this paragraph shall be reimbursed in accordance with the following formula: 37.5 percent shall be reimbursed as main project features, 37.5 percent shall be considered a nonreimbursable Federal expenditure, and 25 percent shall be paid by the State of California.

(15) construct, in cooperation with the State of California and in consultation with local interests, a barrier at the head of Old River in the Sacramento-San Joaquin Delta to be operated on a seasonal basis to increase the survival of young outmigrating salmon that are diverted from the San Joaquin River to Central Valley Project and State Water Project pumping plants and in a manner that does not significantly impair the ability of local entities to divert water. The costs associated with implementation of this paragraph shall be reimbursed in accordance with the following formula: 37.5 percent shall be reimbursed as main project features, 37.5 percent shall be considered a nonreimbursable Federal expenditure, and 25 percent shall be paid by the State of California.

(16) establish, in cooperation with independent entities and the State of California, a comprehensive assessment program to monitor fish and wildlife resources in the Central Valley to assess the biological results and effectiveness of actions implemented pursuant to this subsection. 37.5 percent of the costs associated with implementation of this paragraph shall be reimbursed as main project features, 37.5 percent shall be considered a nonreimbursable Federal expenditure, and 25 percent shall be paid by the State of California.

(17) develop and implement a program to resolve fishery passage problems at the Anderson-Cottonwood Irrigation District Diversion Dam as well as upstream stranding problems related to Anderson-Cottonwood Irrigation District Diversion Dam operations. Costs associated with implementation of this paragraph shall be allocated 50 percent to the United States as a nonreimbursable expenditure and 50 percent to the State of California.

(18) if requested by the State of California, assist in developing and implementing management measures to restore the striped bass fishery of the Bay-Delta estuary. Such measures shall be coordinated with efforts to protect and restore native fisheries. Costs associated with implementation of this paragraph shall be allocated 50 percent to the United States and 50 percent to the State of California.

The United States' share of costs associated with implementation of this paragraph shall be nonreimbursable.

(19) reevaluate existing operational criteria in order to maintain minimum carryover storage at Sacramento and Trinity River reservoirs to protect and restore the anadromous fish of the Sacramento and Trinity Rivers in accordance with the mandates and requirements of this subsection and subject to the Secretary's responsibility to fulfill all project purposes, including agricultural water delivery.

(20) participate with the State of California and other Federal agencies in the implementation of the on-going program to mitigate fully for the fishery impacts associated with operations of the Glenn-Colusa Irrigation District's Hamilton City Pumping Plant. Such participation shall include replacement of the defective fish screens and fish recovery facilities associated with the Hamilton City Pumping Plant. This authorization shall not be deemed to supersede or alter existing authorizations for the participation of other Federal agencies in the mitigation program. Seventy-five percent shall be considered a nonreimbursable Federal expenditure, and 25 percent shall be paid by the State of California.

(21) assist the State of California in efforts to develop and implement measures to avoid losses of juvenile anadromous fish resulting from unscreened or inadequately screened diversions on the Sacramento and San Joaquin rivers, their tributaries, the Sacramento-San Joaquin Delta, and the Suisun Marsh. Such measures shall include but shall not be limited to construction of screens on unscreened diversions, rehabilitation of existing screens, replacement of existing non-functioning screens, and relocation of diversions to less fishery-sensitive areas. The Secretary's share of costs associated with activities authorized under this paragraph shall not exceed 50 percent of the total cost of any such activity.

(22) provide such incentives as the Secretary determines to be appropriate or necessary, consistent with the goals and objectives of this title, to encourage farmers to participate in a program, which the Secretary shall develop, under which such farmers will keep fields flooded during appropriate time periods for the purposes of waterfowl habitat creation and maintenance and for Central Valley Project yield enhancement; *Provided*, That such incentives shall not exceed \$2,000,000 annually, either directly or through credits against other contractual payment obligations, including the pricing waivers authorized under subsection 3405(d) of this title; *Provided further*, That the holder of the water contract shall pass such incentives through to farmers participating in the program, less reasonable contractor costs, if any; *And provided further*, That such water may be transferred subject to section 3405(a) of this title only if the farmer waives all rights to such incentives. This provision shall terminate by the year 2002.

(23) in order to meet Federal trust responsibilities to protect the fishery resources of the Hoopa Valley Tribe, and to meet the fishery restoration goals of the Act of October 24, 1984, Public Law 98-541, provide through the Trinity River Division, for water years 1992 through 1996, an instream release of water to the Trinity River of not less than three hundred and forty thousand acre-feet per year for the purposes of fishery restoration, propagation, and maintenance and,

(A) by September 30, 1996, the Secretary, after consultation with the Hoopa Valley Tribe, shall complete the Trinity River Flow Evaluation Study currently being conducted by the United States Fish and Wildlife Service under the mandate of the Secretarial Decision of January 14, 1981, in a manner which insures the development of recommendations, based on the best available scientific data, regarding permanent instream fishery flow requirements and Trinity River Division operating criteria and procedures for the restoration and maintenance of the Trinity River fishery; and

(B) not later than December 31, 1996, the Secretary shall forward the recommendations of the Trinity River Flow Evaluation Study, referred to in subparagraph (A) of this paragraph, to the Committee on Energy and Natural Resources and the Select Committee on Indian Affairs of the Senate and the Committee on Interior and Insular Affairs and the Committee on Merchant Marine and Fisheries of the House of Representatives. If the Secretary and the Hoopa Valley Tribe concur in these recommendations, any increase to the minimum Trinity River instream fishery releases established under this paragraph and the operating criteria and procedures referred to in subparagraph (A) shall be implemented accordingly. If the Hoopa Valley Tribe and the Secretary do not concur, the minimum Trinity River instream fishery releases established under this paragraph shall remain in effect unless increased by an Act of Congress, appropriate judicial decree, or agreement between the Secretary and the Hoopa Valley Tribe. Costs associated with implementation of this paragraph shall be reimbursable as operation and maintenance expenditures pursuant to existing law.

If the Secretary and the State of California determine that long-term natural fishery productivity in all Central Valley Project controlled rivers and streams resulting from implementation of this section exceeds that which existed in the absence of Central Valley Project facilities, the costs of implementing those measures which are determined to provide such enhancement shall become credits to offset reimbursable costs associated with implementation of this subsection.