HOUSE COMMITTEE ON
NATURAL RESOURCES
CHAIRMAN BRUCE WESTERMAN

To: Subcommittee on Water, Wildlife and Fisheries Republican Members
From: Subcommittee on Water, Wildlife and Fisheries staff: Annick Miller, x58331 (annick.miller@mail.house.gov), Doug Levine (doug.levine@mail.house.gov), Kirby Struhar (kirby.struhar@mail.house.gov), and Thomas Shipman (thomas.shipman@mail.house.gov).
Date: Friday, September 6, 2024
Subject: Oversight Hearing on *"Water Abundance: Opportunities and Challenges in California"*

The Subcommittee on Water, Wildlife and Fisheries will hold an oversight hearing on *"Water Abundance: Opportunities and Challenges in California"* **on Friday, September 6, 2024, at 10:30 a.m. (PDT) at Hotel Mission de Oro in Santa Nella, CA.**

Member offices are requested to notify Sophia Varnasidis (Sophia.Varnasidis@mail.house.gov) by 4:30 p.m. on Thursday, September 5, 2024, if their Member intends to participate in the hearing.

I. KEY MESSAGES

- California's Central Valley is one of the largest agriculture producers in the United States, producing one-quarter of the food consumed in the nation, and is home to more than 300 different crops.
- A year after Central Valley communities were experiencing widespread flooding due to historic precipitation, those same communities began the 2024 water year with a paltry 15 percent water allocation for California's south-of-delta farmers.
- The Central Valley Project was built to protect farmers from water shortages and floods. Yet, current management has moved away from its primary purpose using the system instead to mitigate impacts beyond the scope of the project's purposes. This has led to unreliable water supplies even during average water years.
- This field hearing will explore the opportunities and challenges of providing water reliability and abundance in California.

II. WITNESSES

- **The Honorable Richard Spinrad,** Under Secretary of Commerce for Oceans and Atmosphere & NOAA Administrator, Department of Commerce, Washington, DC [*invited*]
- **The Honorable Camille Calimlim Touton,** Commissioner, Bureau of Reclamation, Department of the Interior, Washington, DC [*invited*]

- **The Honorable Martha Williams,** Director, U.S. Fish and Wildlife Service, Department of the Interior, Washington, DC [*invited*]
- **Mr. Jason Phillips,** Chief Executive Officer, Friant Water Authority, Lindsay, CA
- **Ms. Allison Febbo,** General Manager, Westlands Water District, Fresno, CA
- **Mr. Josh Weimer,** Director of External Affairs, Turlock Irrigation District, Turlock, CA
- **Mr. William Bourdeau,** Founder and CEO, Bourdeau Farms LLC, Coalinga, CA
- **Ms. Ronda Lucas,** Attorney, Lucas Law, Hilmar, CA
- **Mr. John Herrick,** General Counsel and Manager, South Delta Water Agency, Lodi, CA

III. BACKGROUND

California's Central Valley

California's Central Valley is divided into three basins: the Sacramento Valley, the San Joaquin Valley, and the Tulare Lake Basin. The mean annual inflow to the Sacramento and San Joaquin valleys is approximately 23.1 million acre-feet (AF).[1,2] However, annual flows have ranged from a low of 6.2 million AF in 1977 to a high of 52.7 million AF in 1983.[3] In the Tulare Lake Basin, the Kings, Kaweah, Tule, and Kern Rivers have a combined mean annual runoff of approximately two million AF.[4]

The Central Valley is one of the greatest agriculture producers in the United States, producing one-quarter of the food consumed in the nation, and is home to more than 300 different crops.[5] The region faces many challenges that impact its water resources, which has significant implications for American agriculture. These include 'boom or bust' water cycles and system operational volatility through continuous and shifting Endangered Species Act (ESA) consultations. Long-term uncertainty impacts the Central Valley's workforce, the broader agriculture sector, and the national economy. The volatility in the region's water supply contributes to food price volatility, with price fluctuations month-to-month impacting inflation indicators such as the Consumer Price Index (CPI). The latest CPI data from the Bureau of Labor Statistics (BLS) found that overall CPI increased 2.9 percent from July 2023 to July 2024, with food prices increasing 2.2 percent.[6] Price increases have persisted over several years, the BLS found that food prices increased 11.4 percent from August 2021 to August 2022, the largest annual increase since May of 1979.[7] The link between food prices and broader economic trends like inflation and interest rates only further highlights the importance of ensuring a reliable water supply, which underpins the future of agriculture in the Central Valley and its importance to the United States economy.

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[1] USBR, *Sacramento and San Joaquin Rivers Basin Study*, March 2016. https://www.usbr.gov/watersmart/bsp/docs/finalreport/sacramento-sj/Sacramento_SanJoaquin_SUMMARY.pdf
[2] An acre foot of water is equivalent to 326,000 gallons, or enough to cover a football field with water one foot deep.
[3] USBR, *Sacramento and San Joaquin Rivers Basin Study*, March 2016. https://www.usbr.gov/watersmart/bsp/docs/finalreport/sacramento-sj/Sacramento_SanJoaquin_SUMMARY.pdf
[4] *Id.*
[5] Fruit Growers Supply, How the Central Valley Feeds the Nation. January 19, 2023. https://fruitgrowers.com/how-the-central-valley-feeds-the-nation/
[6] Bureau of Labor Statistics. Consumer Price Index Summary. August 14, 2024. https://www.bls.gov/news.release/cpi.nr0.htm
[7] Bureau of Labor Statistics. News Release, Consumer Price Index – August 2022. September 13, 2022. https://www.bls.gov/news.release/archives/cpi_09132022.pdf

Central Valley Project

Operated by the Bureau of Reclamation (Reclamation), the Central Valley Project (CVP) is one of the largest federal water projects in the United States. The CVP manages water resources throughout the Central Valley to support agriculture, provide flood control, and ensure adequate water supply for urban and industrial uses. The CVP covers a geographic area spanning roughly 400 miles from Redding, California, to the north and Bakersfield to the south.[8] The system contains 20 dams, reservoirs, and pumping stations capable of holding roughly 12 million AF of water.[9] The largest of these facilities being Shasta Dam, which has a storage capacity of 4.552 million AF.[10]

The CVP also includes numerous water conveyance facilities, the longest of which are the Delta Mendota Canal (which runs for 117 miles from the federally operated Bill Jones pumping plant in the Bay-Delta to the San Joaquin River near Madera) and the Friant-Kern Canal (which runs 152 miles from Friant Dam to the Kern River near Bakersfield).

Based on CVP water contracts, the project can deliver up to 9.5 million AF. However, actual deliveries are often much lower, averaging 5 million AF of water to farms, 600,000 AF to municipal and industrial users, 410,000 AF to wildlife refuges, and 800,000 AF for other fish and wildlife needs, among other purposes.[11]

State Water Project

The State Water Project (SWP) is a separate major project owned and operated by the California Department of Water Resources (DWR). The SWP delivers about 70 percent of its water to urban users, including water for approximately 25 million users in the San Francisco Bay Area, Central Valley, and Southern California; the remaining 30 percent is used for irrigation. The SWP draws water from many of the same sources as the CVP, which requires both the SWP and CVP to coordinate their operations. To achieve this, California maintained a consistency determination that deemed the federal ESA regulations covering operations of the CVP satisfied the California Endangered Species Act (CESA) for the purposes of SWP operations by DWR.

Challenges: Decline in Water Supply Reliability

Providing adequate water for multiple uses in the Central Valley remains challenging due to increasing federal and state regulations and inadequate infrastructure, further exacerbated by highly variable water supplies in the form of precipitation and snowpack. While the CVP was built to protect farmers from water shortages and floods, the project's management has moved away from its primary purpose to mitigate for impacts beyond the project's scope. This has led to unreliable water supplies even during average water years.

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[8] USBR, About the Central Valley Project, August 2022. https://www.usbr.gov/mp/cvp/about-cvp.html
[9] USBR, Central Valley Project, April 2024. https://www.usbr.gov/mp/cvp/index.html
[10] *Id.*
[11] USBR, Central Valley Project, Water Quantities for Delivery 2023. https://www.usbr.gov/mp/cvp-water/docs/cvp-water-quantities-for-delivery-2023.pdf

The CVP's operations have been subject to controversies and litigation, especially over the ESA. The CVP is subject to biological opinions (BiOps) issued by the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) over ESA-listed species. The intent of a BiOp is to ensure the project does not reduce the likelihood of survival and recovery of an ESA-listed species. In March 2020, following the issuance of the Record of Decision for the updated CVP BiOps, California abandoned its consistency determination. It issued an Incidental Take Permit (ITP) for SWP operations under the CESA.[12] This action established dual regulatory frameworks for the CVP and SWP, and imposed explicit operational requirements for the SWP that are separate from the federal requirements.[13]

Water allocations in recent years have encapsulated the 'boom or bust' cycle of California water. Even after a record-setting winter of 2023 left reservoirs with 8.17 million AF of water in storage – more than double the previous year.[14] – the 2024 initial water allocations for South-of-Delta agricultural contractors were just 15 percent of their maximum allocation.[15] This is a stark contrast from 2023, when the year began with 3.6 million AF of water in storage, one of the lowest starting points in recent years, yet initial allocations were 35 percent.[16] In the previous two years, 2022 and 2021, water allocations for South-of-Delta agricultural contractors were 0 percent.[17] Combined with other water requirements under the Central Valley Project Improvement Act (CVPIA, P.L. 102-575), the State of California's water quality standards and the lack of integrated new water storage, the CVP and the SWP's operations have changed dramatically over the last forty years and are heavily litigated.[18]

Regulatory Impacts: Federal Actions

Endangered Species Act Implementation: In February 2021, the Biden-Harris administration initiated a review of the BiOps for the CVP and SWP that the FWS and the NMFS issued during the Trump administration.[19] On September 30, 2021, Reclamation restarted the ESA consultation process for the operations of the CVP.[20] Shortly thereafter, in a litigation joint status report to the courts, the Biden-Harris administration and the State of California submitted an interim operations plan (IOP) for the 2021-2022 water year, while the reinitiated consultation continued at the federal level.[21] Under the IOP, the Biden-Harris administration would complete a new set of biological opinions to oversee the CVP. It also included changes to the Shasta Reservoir's

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[12] CDWR "CDFW Issues Permit to DWR for Long-Term Operations of the State Water Project", March 31, 2020. https://water.ca.gov/News/News-Releases/2020/March-20/CDFW-Issues-Permit-to-DWR-for-Long-Term-Operations
[13] CDWR, "DWR Moves to Strengthen Protections for Fish, Improve Real-Time Management of State Water Project" November 21, 2019. https://water.ca.gov/News/News-Releases/2019/November/Long-Term-Operations-of-State-Water-Project
[14] USBR, *Record-setting winter leaves Central Valley Project well-positioned at start of 2024 water year*, October 3, 2023. https://www.usbr.gov/newsroom/news-release/4649
[15] USBR, Central Valley Project, Summary of Water Supply Allocations. https://www.usbr.gov/mp/cvo/vungvari/water_allocations_historical.pdf
[16] *Supra* at 15.
[17] *Supra* at 12.
[18] CRS, *Central Valley Project: Issues and Legislation*, June 26, 2024. https://crsreports.congress.gov/product/pdf/R/R45342
[19] USBR, *California Republican Delegation Urges Biden Administration to Ensure Continued California Water Supply*, February 21, 2021. https://valadao.house.gov/news/documentsingle.aspx?DocumentID=69
[20] USBR, Letter to USFWS and NMFS re-initiating Section 7 Consultation under ESA, September 30, 2021. https://www.usbr.gov/mp/bdo/lto/ltr-reinitiation-2021-09-30.pdf
[21] October 14, 2021, Joint Status Report, Pac. Coast Fed'n of Fishermen's Ass'n v. Raimondo, No. 1:20-cv-00431, at 1- 2 (E.D. Cal. Oct. 14, 2021).

operations to provide temperature control downstream of the reservoir, new spring outflow requirements, and changes to CVP water exports.[22]

The IOP raised concerns with several parties who noted that they had requested, but had not received, modeling and other technical information underlying the IOP. On October 20, 2021, a federal district court granted the request to implement the IOP and stay the litigation. Since then, the court has issued a revised IOP. In December 2023, the federal and state parties requested that the court extend the IOP again, with certain adjustments from the IOP Extension, until either December 20, 2024, or until the new record of decision (ROD) is issued—whichever comes first.

Combined NMFS/USFWS LTO Biological Opinion Schedule
Subject to change

Milestone	NMFS Completion Date	FWS Completion Date	Note
WIIN Act Coordination Meeting #1	April 29, 2024		Describe BiOp schedule and status update
WIIN Act Coordination Meeting #2	July 4th week	June 24th week	Overview of draft BiOp structure for WIIN review
Draft BiOp	July 26, 2024	June 28, 2024	First draft for Peer/WIIN/Stakeholder Review
WIIN Act Review	August 12, 2024	July 15, 2024	2 week WIIN act review
Peer Review	August 30, 2024	July 29, 2024	1 month Independent Peer Review
WIIN Act Coordination Meeting #3	3rd week of August		Post Review Meeting with PWAs
Final Biological Opinion	December 6, 2024	October 15, 2024	Finalize and Rollout. Assumes No J/Adverse Mod

Figure 1 Bureau of Reclamation BiOp Timeline | Source: Politico

National Environmental Policy Act: On July 26, 2024, Reclamation released its Long-Term Operation of the Central Valley Project and State Water Project Draft Environmental Impact Statement.[23] The draft document includes four proposed alternatives to the no-action alternative that would establish different objectives for storage, release, and diversion of water. The alternatives would lead to varying levels of downstream flow, water supply, and power generation depending on water-year type and season. Reclamation's preferred alternative has been characterized as providing "less water [to farms and communities] as agencies store more water in Shasta Reservoir as temperature control for fish."[24]

Regulatory Impacts: State Actions

California sets water quality standards and issues permits for the discharge of pollutants in compliance with the federal Clean Water Act (CWA) enacted in 1972. Through the Porter-Cologne Act (a state law), California implements federal CWA requirements and authorizes the State Water Resources Control Board (State Water Board) to adopt water quality control plans, or basin plans.[25] The CVP and the SWP affect water quality in the Bay Delta depending on how

[22] *Id.*
[23] USBR, Reclamation seeks comments on proposed changes to Central Valley Project operation, July 26, 2024. https://www.usbr.gov/newsroom/news-release/4915
[24] Souza, Christine. "Water operations long-term plan could limit supply" Ag Alert. August 7, 2024. https://www.agalert.com/california-ag-news/archives/august-7-2024/water-operations-long-term-plan-could-limit-supply/.
[25] Cal. Water Code §13160.

much freshwater the projects release into the area as "unimpaired flows," affecting area salinity levels in the Bady Delta.

The first Water Quality Control Plan for the Bay-Delta (Bay-Delta Plan) was issued by the State Water Board in 1978. Since then, the plan has had three substantive updates—in 1991, 1995, and 2006. The plans have generally required the SWP and CVP to meet specific water quality and flow objectives in the Delta to maintain desired salinity levels for in-Delta diversions. These objectives often affect the amount and timing of water available to be pumped or exported from the Delta, thus at times reducing Delta exports to CVP and SWP water users south of the Delta. The Bay-Delta Plan is currently implemented through the State Water Board's Decision 1641 (or D-1641). Issued in 1999, D-1641 placed responsibility for plan implementation on the state's largest two water rights holders, Reclamation and the California Department of Water Resources (DWR).[26] Pumping restrictions to meet state-set water quality levels—particularly to address increases in salinity levels—can be significant.

Updates to the 2006 Bay-Delta Plan are carried out in two processes: one for the San Joaquin River and Southern Delta, and the other for the Sacramento River and tributaries north of the Delta. In December 2018, the State Water Board adopted amendments to the 2006 Bay-Delta Plan that established flow objectives and revised salinity objectives for the Lower San Joaquin River and Southern Delta.[27]

The San Joaquin portion of the amendments to the Bay-Delta Plan requires additional flows to the ocean from the San Joaquin River and its tributaries. Under the proposal, the unimpaired flow requirement for the San Joaquin River is approximately 40 percent (within a range of 30-50 percent); average unimpaired flows currently range from 21 to 40 percent.[28] The state estimates that the amendments would reduce water available for human use from the San Joaquin River and its tributaries by 7 to 23 percent, depending on the water year type, and could reduce water supplies by as much as 38 percent during critically dry years.[29] The state is also updating flow requirements on the Sacramento River and its tributaries, but a detailed plan has yet to be finalized. The conditions in the Bay-Delta Plan Update would be implemented through water rights conditions imposed by the State Water Board.

According to the state, the Bay-Delta Plan Update establishes a "starting point" for increased river flows but also makes allowances for reduced flow requirements on tributaries where stakeholders have reached so-called "voluntary agreements" to pursue both flow and non-flow

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[26] California Environmental Protection Agency, State Water Resources Control Board, "Revised Water Right Decision 1641," March 15, 2000, https://www.waterboards.ca.gov/waterrights/board_decisions/adopted_orders/decisions/d1600_d1649/wrd1641_1999dec29.pdf

[27] California State Water Board, Adoption of Amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary and Final Substitute Environmental Document, Resolution No. 2018- 0059, December 12, 2018. https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/bay_delta_plan/water_quality_control_planning/2018_sed/

[28] California Water Boards, "State Water Board Seeks Public Comment on Final Draft Bay-Delta Plan Update for the Lower San Joaquin River and Southern Delta," July 6, 2018, https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/docs/Bay-Delta_Plan_Update_Press_Release.pdf

[29] California Water Boards, "Summary of Proposed Amendments to the Bay-Delta Water Quality Control Plan," July 6, 2018, https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/docs/sed/lsjr_sdwq_summary_070618.pdf.

measures, such as habitat restoration projects and funding.[30] Negotiations to finalize these agreements have been ongoing and involve the state and federal governments and numerous stakeholders. According to the State Water Board, if water users do not enter "voluntary agreements" to implement the plan update, the board could eventually require their implementation, such as promulgating regulations and conditioning of water rights.[31]

Reclamation and its contractors would likely play critical roles in implementing any update to the Bay-Delta Plan, as they do in implementing the current Bay-Delta Plan under D-1641. However, the proposed Bay-Delta Plan Update has generated controversy. In a July 2018 letter to the State Water Board, the Commissioner of Reclamation opposed the Board's amendments to the standards for the San Joaquin River, arguing that meeting them would necessitate decreased water in storage at New Melones Reservoir of approximately 315,000 AF per year (a higher amount than what was estimated by the State Water Board). At the time, Reclamation asserted that such a change would contradict the CVP prioritization scheme established by Congress.[32] Reclamation also noted that these changes "will likely result in diminished power generation and recreational opportunities at New Melones, as well."[33]

Sedimentation

A 2016 report by the DWR states that sediment can be positive in some instances and harmful in others. The reports states that excessive sediment buildup in rivers and streams can lead to negative environmental impacts, including "degraded wildlife habitat…impaired fish spawning substrates, reduced survival of juvenile fish, and smothered bottom dwelling plants and animals."[34] Excessive sedimentation can also lead to "reduced hydraulic capacity of stream and flood channels, causing an increase in flood crests and flood damage"[35] and "decreased useful lifetime of a reservoir, as a result of reduced storage capacity."[36]

Opportunities to Improve Access to Water Resources in California

Infrastructure

California does not have enough storage capacity to capture water during big storm events and keep it for future use. As such, Congress enacted the Water Infrastructure Improvements for the Nation (WIIN) Act (P.L. 114-322) which included several CVP-related sections and authorized funding for construction of new federal and nonfederal water storage projects. These projects include:

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[30] California Water Boards, "State Water Board Adopts Bay-Delta Plan Update," press release, December 12, 2018, https://www.waterboards.ca.gov/press_room/press_releases/2018/pr121218_bay-delta_plan_update.pdf.
[31] California Water Boards, "July 2018 Framework."
[32] Letter from Brenda Burman, Commissioner, Bureau of Reclamation, DOI, to Felicia Marcus, Chair, State Water Resources Control Board, July 27, 2018, https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/docs/comments_lsjr_finalsed/Brenda_Burman_BOR.pdf.
[33] *Id.*
[34] CDWR. *A Resource Management Strategy of the California Water Plan*. July 29, 2016. https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/RMS/2016/25_Sediment_Mgt_July2016.pdf
[35] Id.
[36] Id.

Sites Reservoir Storage Project: Sites Reservoir, a proposed off-stream storage facility northwest of Sacramento, California, could improve California's water storage capabilities. The project's origins date back to the 1960s, but it is anticipated to be operational around 2030.[37] While this project has had several starts and stops, it has been continuously studied since the early 2000s.[38] The Final Environmental Impact Report/Environmental Impact Statement was released in November 2023.[39] The National Environmental Policy Act (NEPA) requirement to analyze project alternatives has been a leading factor delaying this project. Under NEPA, Reclamation and the State of California investigated 52 different project alternatives for Sites Reservoir.[40] According to the Sites Project Authority, had the project been constructed before the 2023 atmospheric rivers "Sites Reservoir could have diverted and captured 250,000 acre-feet of water as a result of the January storms if the reservoir was operational, and an additional potential 244,000 acre-feet of water as a result of the February-March storms."[41]

B.F. Sisk Dam Raise and Reservoir Expansion: The B.F. Sisk Dam in Merced County, California, is the largest off-stream water storage facility in the United States and can hold up to 2 million AF of water at capacity.[42] The dam was completed in 1967 as a component of the CVP.[43] In August 2020, Reclamation provided Congress with the B.F. Sisk Dam Safety of Dams Modification Report in an effort to alleviate water supply challenges during dry years and as part of the Safety of Dams program.[44] The report addressed two major concerns: upgrading the structure's stability in case of a seismic event and raising the dam's crest by 10 feet to increase the reservoir's maximum storage capacity.[45] Reclamation anticipates that the total cost of this project will be $1.1 billion (2021 price level) and that it will be completed in 2032. Upon completion, the reservoir will be capable of storing an additional 130,000 AF of water.[46]

Shasta Dam and Reservoir Enlargement Project: Under the Trump administration, Reclamation released its Final Supplemental Environmental Impact Statement on raising Shasta Dam by 18.5 feet. This would have provided an additional 634,000 AF of stored water to increase anadromous (salmon) fish survival and water supply reliability while providing for flood control, water

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[37] In the 1960s, Reclamation evaluated construction of a 1.2 million-acre-foot Sites Reservoir. California Department of Water Resources (DWR). Bulletin 76-81: State Water Project – Status of Water Conservation and Water Supply Augmentation Plans. 1981. https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/docs/comments102612/desjardins/bulletin76-81.pdf

[38] DWR received authorization to study Sites Reservoir in 1996 under State of California Proposition 204, The Safe, Clean, Reliable Water Supply Act. The Bureau of Reclamation was authorized by Congress through the California Bay-Delta Program (CALFED, Public Law 108-361, Water Supply, Reliability, and Environmental Improvement Act).

[39] Sites Reservoir Environmental Review, 2023-2024 Sites Reservoir Test Pits, Fault Studies, and Quarry Studies. https://sitesproject.org/environmental-review/

[40] Testimony of Thad Bettner, General Manager, Glenn-Colusa Irrigation District before the Natural Resources Committee, February 7, 2012. https://www.govinfo.gov/content/pkg/CHRG-112hhrg72805/pdf/CHRG-112hhrg72805.pdf

[41] Sites, Press Release: *New Analysis Finds 2023 Storms Would Have Yielded Water for Up to 2.4 Million People, Farms, and Businesses if Sites Reservoir Were Operational Today*, March 16, 2023. https://sitesproject.org/wp-content/uploads/2023/03/Sites-News-Release_March-Storm-Diversion-Data_FINAL-3.16.2023.pdf

[42] California Great-Basin. Bureau of Reclamation.10/5/2023. https://usbr.gov/mp/sod/projects/sisk/index.html

[43] *Id.*

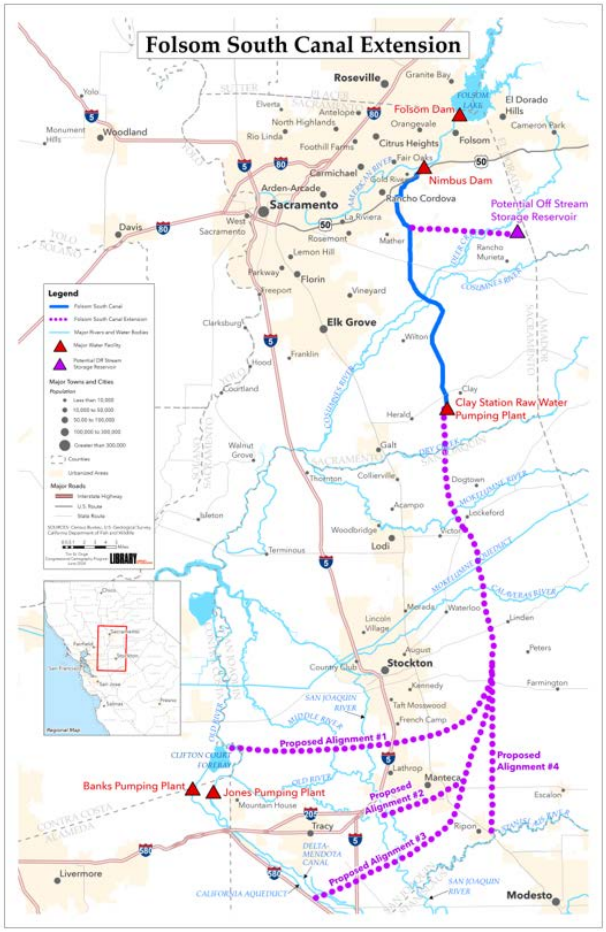
[44] USBR, B.F. Sisk Dam Safety of Dams Modification Report, December 2019. https://www.usbr.gov/mp/sod/projects/sisk/docs/sisk-mod-summary.pdf

[45] *Id.*

[46] *Biden-Harris Administration and San Luis & Delta-Mendota Water Authority Approve Plan for B.F. Sisk Dam Project, Advancing Water Supply Reliability and Public Safety in California's Central Valley.* Department of the Interior. 10/20/2023. https://www.doi.gov/pressreleases/biden-harris-administration-and-san-luis-delta-mendota-water-authority-approve-plan-bf

quality, hydropower generation, and recreation opportunities.[47] This project has faced repeated opposition by Democratic Members of Congress[48] and has been ignored by the Biden-Harris administration.

Los Vaqueros Reservoir Phase 2 Expansion: The proposed expansion of Los Vaqueros Reservoir would increase the reservoir's capacity up to 275,000 AF from 160,000 AF. In 2020, Reclamation found the expansion project to be feasible.[49] However, the Biden-Harris administration has yet to finalize the Record of Decision for this project, as many of the necessary permits are incomplete.



Other Infrastructure

Folsom South Canal Extension Project: The Folsom South Canal was planned to be constructed in five reaches for a total length of 68.8 miles. However, only the first two reaches have ever been built, with a total length of 26.7 miles. The canal originates at Nimbus Dam, on the American River, in Sacramento County, and extends southward. As originally planned, it would terminate about 20 miles southeast of the city of Stockton. This concrete-lined canal has a capacity of 3,500 cubic feet per second for the first two reaches. There are ongoing preliminary discussions regarding a potential Folsom South Canal Extension Project that would extend the canal from its current terminus near Clay Station to the Delta region. Reclamation has not yet conducted any appraisal or feasibility studies.

Congressional Work

In July 2024, the Committee on Natural Resources held a hearing on a Discussion Draft of the "ESA Amendments Act of 2024." This legislation would reauthorize and amend the ESA by incentivizing recovery, providing regulatory clarity, and rolling back red tape put in place by the Biden-Harris administration. This bill contains several reforms that are critical to the future of the Central Valley Project, including providing a consistent definition of environmental baseline

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[47] USBR, Final Supplemental Environmental Impact Statement, *Shasta Lake Water Resources Investigation*. https://www.usbr.gov/mp/nepa/includes/documentShow.php?Doc_ID=47404

[48] Los Angeles Times. White House pushes for dam project at odds over Shasta Dam. https://enewspaper.latimes.com/infinity/article_share.aspx?guid=1e05c229-bb1f-4c50-b235-ee2de459f017

[49] USBR, Reclamation and Contra Costa Water District advance plan to increase water reliability, February 28, 2020. https://www.usbr.gov/newsroom/newsroomold/newsrelease/detail.cfm?RecordID=69643

and ensuring the Services (FWS and NMFS) do not force project proponents (water users in the case of the CVP) to mitigate the impact of projects on listed species through the ESA Section 7 process. More information on the Discussion Draft and the hearing can be seen here.

The Committee has also passed H.R. 7408, the "America's Wildlife Habitat Conservation Act (AWHCA)," which contains essential reforms to the ESA and investments in state wildlife conservation programs. Specifically, the bill would authorize $320 million in funding to state and tribal wildlife agencies to conserve habitat for at-risk species. In addition, the AWHCA would protect private landowners investing in species conservation from punitive critical habitat designations and give states more significant regulatory opportunities to manage listed species. This two-pronged approach provides the resources and regulatory incentives for states and private landowners to invest in wildlife conservation to conserve habitat and prevent species from being listed. More information on the AWHCA can be seen here.

Additionally, the Committee passed H.R. 215, the WATER for California Act, which would amend and extend the WIIN Act's CVP operational authorities through 2033 and require that Reclamation operate the project pursuant to the 2019 BiOps. The bill would also reauthorize the WIIN Act's storage authorities through the end of 2028 (most of these authorities expired in late 2021).

Harnessing New Technology: Snowpack Measurements

Snowpack plays a vital role in keeping California's reservoirs full. Winter and spring snowpack typically melt gradually throughout the year, flowing into and refilling reservoirs. During most years, the maximum snow-water equivalent[50] (SWE) in the Sierra Nevada denotes the annual peak of surface water resources. SWE is a key index for forecasting stream and river flow timing and amount and for a wide variety of water management decisions. Typically, these measurements are done manually by inserting a tube through the entire depth of the overlaying snow cover. However, new technologies have been developed to provide more accurate measurements.

For example, in 2012, the Turlock Irrigation District (TID) partnered with NASA to fly an airplane with light detection and ranging (LiDAR) technology over its entire watershed, taking millions of points of measurement to give a complete picture of the snowpack. The use of this technology has allowed TID to manage its reservoirs better, saving water from being unnecessarily released due to poor models.

In December 2020, Congress authorized the Snow Water Supply Forecast Program (P.L. 116-260, Sec. 1111) to enhance snow monitoring and subsequent water supply forecasts. Under this program, Reclamation provides cost-share on a competitive basis for a broad range of participants to conduct snow monitoring and water supply forecasting projects.

[50] Snow Water Equivalent is the amount of liquid water equivalent of a volume of snow