December 11, 2024 - Agenda Item #6F

BAY AREA WATER SUPPLY AND CONSERVATION AGENCY BOARD OF DIRECTORS MEETING

December 6, 2024

Correspondence and media coverage of interest between November 27, 2024 and December 3, 2024

Correspondence

From: Los Vagueros Reservoir JPA

To: Stakeholders

Date: November 27, 2024

Subject: Los Vaqueros Reservoir Joint Powers Authority Update

From: Charles Wieland – San Ramon, Ca

To: BAWSCA Board of Directors

Date: November 21, 2024

Subject: Restore Remote Public Comment at BAWSCA

Press Release

From: Bureau of Reclamation Date: December 3, 2024

Subject: Biden-Harris Administration announces Over \$65 Million of 11 projects in

Northern California to modernize water infrastructure and strengthen drought

resilience

From: California Department of Water Resources

Date: December 2, 2024

Subject: DWR Announces Initial State Water Project Allocation for 2025

Water Supply Conditions:

Date: December 3, 2024

Source: Newsweek

Article: California's Second-Largest Reservoir Sees Suden Change in Water Level

Date: December 2, 2024 Source: San Francisco Chronicle

Article: December off to a dry start in California with high-pressure system in place

Date: November 26, 2024

Source: CBS News

Article: Record-breaking storms provides boost for California's water supply

Water Policy:

Date: December 4, 2024 Source: Sacramento Bee

Article: EPA urges California to protect Native culture by keeping more water in the Delta

December 11, 2024 - Agenda Item #6F

Water Policy, cont'd.:

Date: November 30, 2024

Source: North Coast

Article: Three water agencies vote to fund Delta Tunnel as a broad coalition opposes it

Date: November 27, 2024 Source: Valley Ag Voice

Article: Public Review Begins for Bay-Delta Revisions, Comment Period Ends Soon

Water Management:

Date: December 3, 2024 Source: Tri-City Voice

Article: New Alameda Creek project boosts fish access

Date: December 2, 2024

Source: LA Times

Article: California sets initial State Water Project allocation at 5% following hot, dry

stretch

Date: November 27, 2024 Source: Valley Ag Voice

Article: Redirections in SWP Deliveries Expected to Continue

From: Los Vaqueros Reservoir JPA <info-losvaquerosjpa.com@shared1.ccsend.com>

Sent: Wednesday, November 27, 2024 10:20 AM **To:** Nicole Sandkulla <NSandkulla@bawsca.org>

Subject: Los Vaqueros Reservoir Joint Powers Authority Update

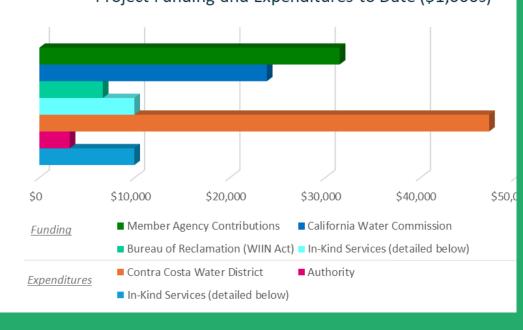
November 27, 2024

Los Vaqueros Reservoir Joint Powers Authority Update





UPDATE ON MULTIPARTY COST SHARE AGREEMENT



NOVEMBER BOARD OF DIRECTORS MEETING RECAP

On November 13, the JPA Board of Directors met in person at Zone 7 Water Agency, primarily to provide direction to JPA staff on next steps regarding the Contra Costa Water District's (CCWD) November 6 Board meeting, where the Board resolved to end the Phase 2 Los Vaqueros Reservoir Expansion Project (Project) and pursue dissolution of the JPA.

As discussed at the JPA Board meeting on October 6, the CCWD Board directed CCWD staff to develop an approach for ending CCWD's participation in the Project, as discussed at its September 18 meeting. At its November 6 meeting, the CCWD Board formalized its decision in Resolution No. 24-014 Authorizing the General Manager to Execute Required Documentation to Withdraw the Phase 2 LVE Project Proposition 1 Water Storage Improvement Program (WSIP) Application and to Coordinate with JPA Member Agencies to Dissolve the JPA and Terminate the JPA Agreement.

Executive Director, Taryn Ravazzini provided introductory remarks for this agenda item, sharing a summary of communication occurring between the JPA and CCWD since the October 9 JPA Board meeting. This included a letter to the CCWD Board from JPA Board Chair, Anthea Hansen, addressing CCWD's concerns around the Project; a letter from Ed Pattison, General Manager of Byron Bethany Irrigation District, emphasizing the importance of the Project for the region; as well as a joint letter from Congressman Jim Costa and Congressman Josh Harder, expressing the desire for CCWD to continue to exhaust all options and try to keep the project alive to the best of the partnership's ability.

Additionally, Rachel Murphy, CCWD General Manager, addressed the JPA Board, providing a summary of the issues and concerns discussed by the CCWD Board and, ultimately, the decision to proceed with adopting the resolution to end the Project.

"I, like many others, am very disappointed that we weren't able to continue to explore some of the options that Members have been interested in hearing about further," said Board Chair, Anthea Hansen. "I think there is a lot of merit in having continued discussions, but we respect the decision of Contra Costa regarding its membership in the JPA."

This was a discussion item only, and no formal action was taken. The JPA Board directed staff to return to the December meeting with a draft work plan for Board consideration. CCWD will remain a part of the JPA and participate in the dissolution activities.

As discussed at the JPA Board meeting on October 9, the JPA Agreement (Agreement) outlines the procedures for withdrawal of Members and termination of the Agreement, which requires the vote of at least 75 percent of the JPA Board members and ratification of 75 percent of the Members' governing bodies. If the Agreement is terminated and all expenses have been paid, the JPA Board may, by unanimous vote, distribute all remaining assets based on an apportionment it deems equitable. In the event a unanimous vote cannot be reached, the dispute resolution process outlined in the Agreement is triggered.

"We made a lot of progress, and we accomplished many things," said Board Vice Chair, Michael Tognolini. "We didn't get to the finish line, but that doesn't mean that what we learned about each other and how we worked together here won't apply to the next collaboration. Those collaborations are ongoing – opportunities where individual agencies or groups of agencies are talking and working together on other ideas that might come forward. While this project didn't make it to the finish line, it might lay the foundation for the next project that does."

The agenda also included consideration of an Ad Hoc Committee to direct the JPA's dissolution activities, which the Board determined unnecessary and alternatively provided staff with direction for next steps. The Board also received updates regarding the JPA's finances; program management, including budget and schedule, agreements, and design and permitting; federal relations activities; and committee meetings.

The next regular meeting of the JPA Board is scheduled for December 11 at Zone 7 Water Agency. In accordance with the Brown Act, the meeting agenda packet will be posted on the JPA website in advance of the meeting.

ADDITIONAL PROJECT INFORMATION

losvaquerosjpa.com ccwater.com/lvstudies

Los Vaqueros Reservoir Joint Powers Authority | 1331 Concord Ave. | Concord, CA 94520 US Unsubscribe | Update Profile | Constant Contact Data Notice





From: Charles Wieland (casper55@hush.com) Sent You a Personal Message

To: <u>bawscaboardofdirectors</u>

Subject: Restore Remote Public Comment at BAWSCA

Date: Thursday, November 21, 2024 3:00:43 PM

Dear BAWSCA Board of Directors,

Dear Board Members,

The removal of remote participation in BAWSCA Board meetings has reduced the transparency of the agency and has excluded the voices of the elderly, working-class, and caregiving community members from sharing their vital perspectives on the actions BAWSCA takes.

Remote participation became the new normal during the pandemic and remains in place in the majority of California cities. BAWSCA has made great progress by returning livestreams of Board meetings and the Agency must continue by implementing remote public comment services. As BAWSCA considers continuing its anti-environmental lawsuit against the State Water Board and chooses to support environmentally harmful voluntary agreements (VAs), the Board must remain transparent and ensure the voices of marginalized communities are heard at public meetings.

The Board must restore remote participation, including remote public comment. Thank you for recognizing the impact that remote participation has on increasing the accessibility and transparency of BAWSCA.

Sincerely,

Sincerely,

Charles Wieland 206A Compton Circle San Ramon, CA 94583 casper55@hush.com (999) 999-9999

This message was sent by KnowWho, as a service provider, on behalf of an individual associated with Sierra Club. If you need more information, please contact Member Care at Sierra Club at member.care@sierraclub.org or (415) 977-5673.





For Release: Dec 3, 2024

Media Contact: Michael Burke 530-243-8300 mburke@usbr.gov

Biden-Harris Administration announces Over \$65 Million for 11 projects in Northern California to modernize water infrastructure and strengthen drought resilience

Funding is among over \$849 million from President Biden's Investing in America agenda to revitalize aging water delivery systems across the West

REDDING, Calif. – The Department of the Interior today announced a total of over \$849 million from President Biden's Investing in America agenda to revitalize aging water delivery systems across the West. The funding includes support of 11 projects in Northern California totaling \$65.1 million to improve water conveyance and storage, increase safety, improve hydropower generation, provide water treatment, as well as funding for fishery improvements.

The funding was announced by Reclamation's Senior Counselor John Watts during a visit to Shasta Dam in California's Shasta County this morning. Projects focusing on water and power include:

- Shasta Powerplant Service Transformer \$11,198,509
- Shasta Dam 850' and 950' Outlet Works Rehabilitation \$9,550,000
- Shasta Power Plant Generator Step Up Transformers Replacement 7,250,000
- Keswick Dam Spillway Regulating Gate Rehabilitation \$4,400,000
- Keswick Power Plant Generator Step Up Transformers Replacement \$3,200,000
- Shasta Pumping Plant Modernization \$2,530,000
- Spring Creek Power Plant Turbine Runners Replacement \$2,500,000
- Shasta Power Plant and Keswick Power Plant Elevator Modernization \$1,400,000

Reclamation's North State fishery program funding includes:

- Spring Creek Conduit Intake Temperature Curtain Replacement \$2,250,000
- Whiskeytown Reservoir Oak Bottom Temperature Curtain Replacement \$880,000
- Coleman National Fish Hatchery Modernization \$20,000,000

"Reclamation is committed to utilizing these historic investments from the Bipartisan Infrastructure Law to ensure our projects remain reliable and sustainable for the next generation," said Reclamation Senior Counselor John Watts. "These facilities are essential to

the West as they provide water for families, farms, and Tribes and produce hydropower and recreation opportunities for communities."

"Shasta Dam was completed nearly 80 years ago. These projects are vital to our critical infrastructure here in Northern California," said Acting Area Manager Elizabeth Hadley. "I am proud of our team at the Northern California Area Office that will carry out these projects that will benefit the communities we serve."

Shasta Dam and Reservoir are located about nine miles northwest of Redding, CA on the Sacramento River. Built between 1938 and 1945, the concrete gravity dam provides flood control, power, and water supply benefits. It is the largest reservoir in California with a 4.5 million acre-feet capacity. Shasta Dam and Reservoir are cornerstone to the Central Valley Project that provides water for over 6 million acres of farmland, delivers water to 29 of the 58 counties in California, provides 2.8 billion Kilowatt-hours of surplus power, and makes water available to benefit fish and wildlife.

To view a full list of projects selected, click here: https://www.usbr.gov/bil/docs/infrastructure/FY-2025-Aging-Infrastucture-Projects.pdf

Through the Bipartisan Infrastructure Law, we have funded nearly 600 projects, totaling over \$4 billion, aimed at enhancing drought resilience, rehabilitating aging infrastructure, and restoring ecosystems across dozens of communities.

President Biden's Investing in America agenda represents the largest investment in climate resilience in the nation's history and is providing much-needed resources to enhance Western communities' resilience to drought and climate change. Through the Bipartisan Infrastructure Law, Reclamation is investing a total of \$8.3 billion over five years for water infrastructure projects, including rural water, water storage, conservation and conveyance, nature-based solutions, dam safety, water purification and reuse, and desalination.



News Releases December 2, 2024

DWR Announces Initial State Water Project Allocation for 2025



Drone view of the California Aqueduct.

First forecast of the season based on current reservoir storage and impacts of recordsetting summer heatwaves

SACRAMENTO, Calif. – Today, the Department of Water Resources (DWR) announced an initial State Water Project (SWP) allocation forecast of five percent of requested supplies for 2025. The SWP provides water to 29 public water agencies that serve 27 million Californians.

The December initial water supply forecast is

the first allocation of the new water year and is based on current reservoir storage and conservative assumptions for precipitation to come. For comparison, last year, the initial allocation for Water Year 2024 was 10 percent of requested supplies and it eventually increased to 40 percent by the end of the season.

The initial allocation forecast announced today does not take into account the series of strong storms that brought precipitation to above average across Northern California in the last two weeks of November. These storms will be taken into account along with other variables for future allocation updates. Prior to these storms, the start of the water year had been dry and warm.

"Based on long-range forecasts and the possibility of a La Nina year, the State Water Project is planning for a dry 2025 punctuated by extreme storms like we've seen in late November," said DWR Director Karla Nemeth. "We need to prepare for any scenario, and this early in the season we need to take a conservative approach to managing our water supply. Our wettest months of the season are still to come."

"What we do know is that we started the water year following record heat this summer and in early October that parched the landscape. We must account for dry soils in our State Water Project allocation planning and our runoff forecasts for the spring," Nemeth said.

Soil moisture is critical to the success of California's water years. If the soil is too dry, snowpack runoff in the spring will absorb into the ground instead of providing water supply to the state's reservoirs. The ability to incorporate soil moisture into runoff forecasts is one of many recent improvements for SWP operations. Investments in Forecast Informed Reservoir Operations

(FIRO) and improved data collection through DWR's \$7 million California Stream Gage Improvement Program will also help DWR and other agencies to incorporate the best available science and data into water management decisions.

Also new this season, the SWP has revised its operating permit to allow for new tools and resources to better manage our water supply for endangered fish species and millions of Californians. Earlier this month, the SWP received a new Incidental Take Permit from the California Department of Fish & Wildlife that covers five species protected under the California Endangered Species Act, including Delta smelt, longfin smelt, white sturgeon, winter-run Chinook salmon and spring-run Chinook salmon. The new permit went into effect on November 4.

Each year, DWR provides the initial SWP allocation based on available water storage, projected water supply, and water demands. Allocations are updated monthly as snowpack, rainfall, and runoff information is assessed, with a final allocation typically determined in May or June. As the winter progresses, if California sees an increase in rain and snowfall, the allocation forecast may increase.

Historical data on SWP allocations is available at https://water.ca.gov/programs/state-water-project/management/swp-water-contractors.

###

Contact:

Ryan Endean, Public Affairs, Department of Water Resources media@water.ca.gov

rnia

California's Second-Largest Reservoir Sees Sudden Change in Water Level

Newsweek | December 3, 2024 | Anna Skinner

Lake Oroville in California last month saw one of the biggest water-level changes the reservoir has ever experienced in November.

A bomb cyclone brought dangerous weather conditions across the Pacific Northwest last month, causing power outages for more than a half-million people and killing at least two. Several atmospheric rivers pummeled California at about the same time.

A bomb cyclone occurs when a storm's pressure drops quickly, which intensifies the storm and ramps up wind gusts. Atmospheric rivers are a "long, narrow region in the atmosphere—like rivers in the sky—that transport most of the water vapor outside of the tropics," according to the National Oceanic and Atmospheric Administration.

The deluge contributed to a sudden rise in several California reservoirs, including Lake Oroville, the state's second-largest reservoir.



Lake Oroville at 100 percent capacity on June 15, 2023, in Oroville, California. Last month, the lake saw one of the biggest water-level changes the reservoir has ever experienced in November. Justin Sullivan/Getty

At the beginning of November, Lake Oroville's water level was 763.48 feet in elevation. By November 30, they were 781.24, a nearly 18-foot increase. The lake fell to a low of 754.82 feet on November 19 before beginning to rise.

The steepest rise occurred between November 19 and 24, when the bomb cyclone and atmospheric river arrived. Prior to the storms, Lake Oroville's level had steadily been falling for months.

During the storms and shortly after, Lake Oroville's water level rose by more than 20 feet.

A California Department of Water Resources spokesperson told Newsweek that the rise on November 24, a change in 8 feet, is the second-highest November water elevation gain the lake has ever seen. November 23 also made the list at an increase of 6.5 feet.

Records have been kept since 1979. The highest water-elevation gain during November occurred on November 30 in 2012 at 8.2 feet.

The lake's November changes also made the top four storage capacity increases, measured in acre feet, in November. On November 22, the lake saw an increase of 76,686 acre feet.

"The timing as to when reservoirs begin to rise each year is weather dependent and variable," the spokesperson said. "For example, for the 2023 Water Year, Lake Oroville saw minor elevation increases starting in December 2022, but January 2023 marked a significant increase in elevation due to numerous atmospheric rivers arriving in California.

"For the 2024 Water Year, Lake Oroville saw steady increases starting mid-December 2023 with higher elevation gains in late January 2024 due to weather. Half of California's annual precipitation falls December through February, making those the key months for water managers."

After its performance in November, Lake Oroville's water level is higher than during the same time period in 2019, 2020, 2021 and 2022. After exhibiting an impressive recovery following years of drought, only its level in 2023 was slightly higher than the current level.

December off to a dry start in California with high-pressure system in place

San Francisco Chronicle | December 2, 024 | Greg Porter



The view from a remote wildfire monitoring camera in the Sausalito area shows mild weather around San Francisco Bay on Sunday.

The final month of 2024 officially began Sunday with sunny skies, mild temperatures and no precipitation — and it looks like that dry trend will continue for several weeks.

A strong and persistent high-pressure system is firmly in place over California, keeping the entire state dry through at least mid-December.

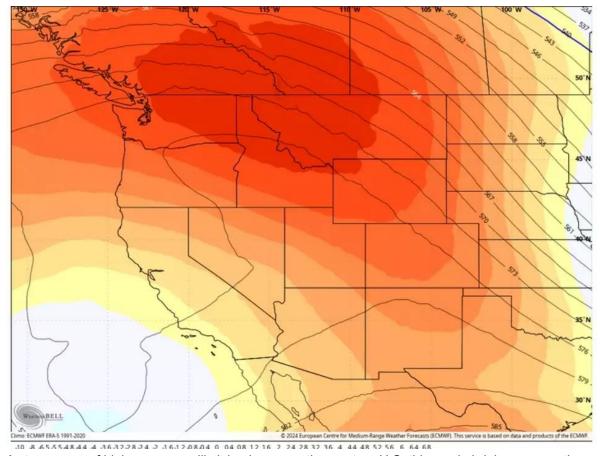
This is a sharp departure from November's rain-soaked weather.

Fueled by a multi-day atmospheric river event, most major climate stations in the Bay Area reported above-normal precipitation for November. Both San Francisco and Oakland recorded more than 4 inches of rain for the month.

Rainfall totals across the Peninsula, East Bay and South Bay ranged between 1.5 and 4.5 inches in November, with much of it falling during just a few days.

The North Bay, however, saw significantly more rainfall. Santa Rosa received a whopping 15.5 inches, while the hills of Marin, Sonoma and Napa counties recorded upward of 20 inches.

It's a feast-or-famine cycle when it comes to California rainfall — and right now, we're firmly in a famine.



A strong area of high pressure will sit in place over the western U.S. this week, brining warmer than average temperatures, lots of sunshine and no precipitation. WeatherBell

The high-pressure ridge dominating the western U.S. will continue to shape the weather this week. While it brings clear skies and mild temperatures, it also has its downsides. High-pressure systems trap air near the surface, which can lead to poor air quality.

While vehicle emissions won't be a major concern on Monday, a Spare the Air alert has been issued for the Bay Area, highlighting wood burning and furnace use as contributors to diminished air quality.

Beyond minor air quality concerns, Monday's weather will be generally pleasant, with highs in the 60s and even low 70s across the region.

Monday overview

San Francisco: Early morning high clouds will clear, leaving mostly sunny skies for the rest of the day. Highs will reach the low 60s in the Sunset District and the mid-60s downtown, with little wind. Overnight lows will dip into the upper 40s under mostly clear skies.

North Bay: Sunshine will break out after some early morning clouds, with highs in the mid-toupper 60s, potentially reaching 70 degrees in spots like Santa Rosa and Vacaville. Overnight, expect clear and cool conditions, with lows in the upper 30s to low 40s.

East Bay: Sunny and warm weather will prevail across the East Bay. Highs will reach the midto upper 60s in Oakland, Walnut Creek and Livermore. Overnight, skies will remain mostly clear except for some high clouds west of the Berkeley Hills, with lows in the mid-40s.

Pacific Coast and Peninsula: Sunshine will dominate Monday's forecast along the Peninsula and coast. Highs will be in the low 60s in Half Moon Bay and Pacifica, warming to the upper 60s farther inland. Overnight, expect a few clouds along the coastline and lows in the mid-to-upper 40s.

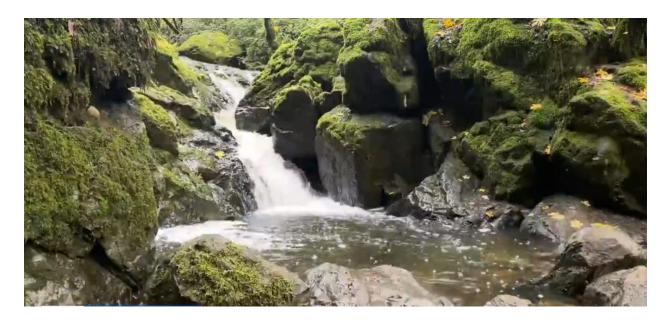
Santa Cruz and South Bay: The South Bay will be the warmest part of the region Monday, with highs in the low 70s in San Jose and throughout the Santa Clara Valley. Santa Cruz will be slightly cooler, with highs in the mid- to upper 60s. Overnight, conditions will remain clear and calm, with lows in the mid- to upper 40s.

###



Record-breaking storms provides boost for California's water supply

CBS News | November 26, 2024 | Wilson Walker



The North Bay saw record rainfall last week, which is good news for the state's water supply that has been healthy for the past two years after a lengthy drought.

The heavy precipitation was still visible in the increased volume of water flowing in a number of Marin County creeks and waterfalls Tuesday.

"Well I just wanted to get some footage along here with all the amazing colors and the water," North Bay resident Hillary explained as she made her way down the Cataract Trail near Stinson Beach. "I always find it amusing that the old-timers on the mountain were not so creative with their waterfall names. We have Cataract and Cascade, which both mean waterfall."

Those waterfalls are still gushing as the tail end of the storm system finally makes its way through the Tamalpais watershed. Hillary came out to enjoy the beauty of it all, without having to brave the deluge.

"Yeah, this is everything from the previous storm that's left coming down," she explained. "And so it's not crazy, but it's much more manageable for walking."

All the water is making its way into a Marin Water system that is now at 88% capacity. For late November, that puts reservoirs at 136% of normal for this time of year. That's the fullest the system has been at this point in the water season since Kent Dam was raised in 1983. And it's not just Marin County seeing the benefits of the storm. There was also good news from Sonoma Water last week.

"You look at well above what the average for this time of the year is, so going into the water year with that amount of rainfall in our reservoirs already captured, it's a wonderful way to start," said Sonoma Water General Manager Grant Davis.

And Californians can now see what that start looks like for the entirety of the state. Looking at the water season chart that compares different years, the blue line is the jump the state just received from last week's rain. It not only kick started the season in a big way, it puts this year on a similar starting trajectory that we saw back in 2016-2017, the drought-busting wettest year on record in Northern California.

"Yeah, I wouldn't expect to see 2016-2017 just yet," laughed Jay Lund with the UC Davis Center for Watershed Sciences. "That was a one-in-a-100-year kind of wet water year."

Lund points to the state's major reservoirs which are now climbing above their historical averages, with sharp jumps compliments from the storm.

"Payoff, yeah," Lund said. "And worries about floods. Because we have a long way to go in this wet season, and we could have floods."

So the storm system was enough to push the state's water situation towards fuller than normal, with a very long way to go.

"We have a lot more balancing that can happen in the next three months," Lund said of what's still to come.

As recent winters keep showing, average is hardly normal in California. The state finds itself swinging from one extreme to another. But it's impossible to know if that kind of extreme rainfall is going to be the exception or the rule this winter. And as Northern California has just seen, it's hard to ever really know what's coming right around the next corner.

EPA urges California to protect Native culture by keeping more water in the Delta Sacramento Bee | December 4, 2024 | Ari Plachta



The Environmental Protection Agency urged California water regulators to protect tribal cultural practices in the Sacramento-San Joaquin Bay Delta, marking a rare federal intervention into state water politics as regulators weigh options to regulate how much water stays in the estuary. Manny Crisosotomo Sacramento Bee file

The Environmental Protection Agency urged California water regulators to protect tribal cultural practices in the Sacramento-San Joaquin Bay Delta, the troubled heart of the state's water supply.

Comments to the State Water Resources Control Board by EPA regional administrator Martha Guzman at a hearing Tuesday marked rare federal intervention into state water politics as regulators weigh options to regulate how much water stays in the estuary.

"The EPA strongly supports the proposal in the draft plan to designate tribal cultural uses throughout the Bay Delta watershed,"

Guzman said, referring to subsistence fishing. "This proposal recognizes the centrality of vital fish populations to many California tribes."

Guzman also challenged a proposal spearheaded by Gov. Gavin Newsom to let water users voluntarily cut back on their use with limited oversight.

The Bay-Delta watershed is crucial to California's water supply, which supports agricultural, urban, and ecological needs. But it is facing an ecological crisis as water quality and river flows drop and some species dwindle.

A century of dams and water diversions has led native fish in California to experience sharp and prolonged declines, according to regulators. Among the threatened and endangered fish are the winter-run Chinook salmon and tiny Delta smelt.

Coalition of environmental groups, tribes

A coalition of environmental groups and tribes filed a civil rights complaint with the EPA. Inadequate water quality standards have allowed the region to deteriorate, they allege, primarily burdening Native Californians who depend on fish for food and cultural preservation.

Krystal Moreno, a representative of the Shingle Springs Band of Miwok Indians, one of the parties on the complaint, applauded Guzman's comments to the Water Board as validation of the tribe's concerns with the status quo.

"Tribal communities need water quality standards that protect the unique way we utilize our waterways," she said. "We appreciate her leadership elevating this issue and hope the board acts to incorporate her recommendation."

California water regulators are weighing several controversial options for the Delta's future. The water board is undergoing a contentious process to update a regulatory framework intended to protect water quality and ecosystem health in the region.

Several options of a draft Bay-Delta Water Quality Control Plan would require minimum amounts of water to remain in rivers and streams, forcing water suppliers and other users to cut back on how much they divert from the Delta for people and farms.

Another option

Another option is a controversial pact that Newsom reached last year with major water suppliers, called 'Voluntary Agreements,' who volunteered to surrender some water and help restore habitat in the watershed.

A coalition of water suppliers, mainly public water agencies distributing water to farms and cities, support the voluntary cutbacks. They say the proposal strikes a balance between offering environmental protections and providing certainty to businesses.

Guzman's comments also challenged a proposal spearheaded by Gov. Gavin Newsom that would allow water users to voluntarily cut back with limited oversight.

If regulators move forward with Newsom's plan, Guzman called for additional accountability and oversight. The water board "must develop robust and transparent accounting and monitoring program, one that is overseen by the board and not water users," she said.

Environmentalists have been concerned the option does not provide enough water for fish and wildlife.

"Martha Guzman echoed the language of our petition and addresses the governor," said Barbara Barrigan-Parilla, executive director for Restore the Delta, whose group advocates for direct regulation of water use. "This is important. Who will his legacy be for, tribes or water exporters?

Allotments of water from the state's rivers and into concrete water delivery systems continue to be unpredictable year to year.

This week, California water managers announced a preliminary forecast for water supplies that will be available next year from the State Water Project, telling nearly 30 local agencies to plan for as little as 5% of requested allotments.

State Water Project's aqueducts and pipelines transport water from the Sacramento-San Joaquin River Delta to 29 different water agencies that supply 27 million people.

Last year, the state's initial forecast was 10% of requested supplies that was later increased to 40% in the spring following several storms. A weak La Niña is forecast to appear this winter, and NOAA forecasters said the pattern will likely bring drier conditions.



Three water agencies vote to fund Delta Tunnel as a broad coalition opposes it

North Coast | November 30, 2024 | Dan Bacher



Annelia Hillman, Yurok Tribal member and artist, speaks at a rally before a Delta Tunnel meeting in Redding in March 2020.

SACRAMENTO — Governor Gavin Newsom on November 21 celebrated the votes over the previous week by three water agencies of the next phase of funding for the Delta Conveyance Project, while a diverse coalition of opponents blasted the project as a massive and expensive boundoggle that would hasten the extinction of Central Valley salmon, Delta smelt and other fish species and cause enormous harm to Delta and Tribal communities.

The Alameda County Water District, Desert Water Agency, and Palmdale Water District all voted in favor of supporting the Delta Tunnel, according to the Governor's Office. These follow other water agencies throughout the state that have also voted in favor of moving the next phase of the project forward.

These agencies include the Coachella Valley Water District, Crestline-Lake Arrowhead Water Agency, Mojave Water Agency, San Bernardino Valley Municipal Water District. San Gabriel Valley Municipal Water District, San Gorgonio Pass Water Agency, Santa Clarita Valley Water Agency and Zone 7 Water Agency.

"California is going to lose 10% of its entire water supply — doing nothing is not an option," said Governor Newsom in a statement. "This project, which would ensure clean drinking water for millions

of Californians, has been right-sized to one tunnel and is critical to our all-of-the-above strategy to boost water supplies."

"Since day one, the Governor pledged to right-size this project to one tunnel and embrace an all-ofthe-above approach to protecting California's water access," the Governor's Office claimed.

Newsom's changing of the project from the twin tunnels to the one tunnel took place after Governor Jerry Brown's twin tunnels plan fell apart in response to massive opposition throughout the state.

"Extreme weather whiplash will result in more intense swings between droughts and floods – California's 60-year-old water infrastructure is not built for these climate impacts. During atmospheric rivers this year, the Delta Conveyance Project could have captured enough water for 9.8 million people's yearly usage," the Office added.

The 40-plus mile long tunnel would divert water from the Sacramento River at Hood to facilitate the export of water to agribusiness in the San Joaquin Valley and Southern California water agencies.

The project is opposed by a big coalition of Tribes, fishing groups, conservation organizations, Delta residents, Delta counties and water districts, scientists and water ratepayers. Opponents say the tunnel, by diverting Sacramento River water before it reaches the Delta, will drive already imperiled Delta smelt, longfin smelt, Sacramento winter-run and spring-run Chinook salmon, Central Valley steelhead, green sturgeon and other fish species to extinction and have a devastating impact on Tribal, fishing, farming and environmental justice communities.

In response to the Governor's praise for the recent water agency votes for the tunnel, Gia Moreno, a Chicana and Native American grassroots activist from Hood, the Delta town that sits at ground zero for the project's construction, said the narrative that California supports this project is a "false one."

"A majority of Californians don't even know what the project is," said Moreno. "Of those that do know, most of them are not in support. Whether they are defending wildlife, the environment, water recreation, Delta Agriculture, the Delta as a living entity, the Delta communities, or their own pocketbooks, most people who hear about the project are opposed to it."

"The project brings no new water to the state," she emphasized. "It does nothing for water conservation or consumption. All it will do is destroy the Delta and cost Californians more money that we don't have. Instead of focusing on alternatives that cost less and better suit our needs, Newsom and his benefactors are trying to force a project that has already been shot down time and again."

Likewise, Kasil Willie, Staff Attorney for Save California Salmon, said the governor is "misleading the public as to how much support this project has."

"While some water agencies have voted to move the project forward, it does not mean that the 2.6 million people who the agencies represent are in favor of the project," Willie observed. "Right now, there are 40 active protests with over 70 protestants in front of the Administrative Hearing Office of the State Water Resources Control Board. Those protesting include tribes, environmental justice

communities, environmental conservation groups, fishing groups, cities, other water districts, and more."

"Additionally, many of the project proponents and funders are from Southern California. The project represents the continued effort to take Northern California's water for use in Southern California, even as an ecological crisis is happening in the Bay Delta," she continued.

"While climate change is altering precipitation patterns, a new extractive water project is not going to help. Central Valley watersheds and aquatic species will continue to suffer if water continues to be over allocated and mismanaged. The state must abandon the decades-long crusade to build this project and instead focus on sustainable and equitable water solutions," Willie said.

Carolee Krieger, Executive Director of the California Water Impact Network (C-WIN), said the water ratepayers are "being sold a boundoggle" by Newsom and the water contractors, noting that 27 million people, 2/3rds of the population, are served by the State Water Project (SWP).

"The tunnel has no secure water rights as they expired in 2009; no secure construction rights as they expired in 2000; no secure funding as the Department of Water Resources (DWR) lost their bond validation claim in court and worst of all, NO new water as the State Board, in their required Phase 2 Flow Report admits that according to their own water rights records, they have given 5 times more water rights than actual consumptive water exists," Krieger argued.

"Why would any water agency saddle their ratepayers with a \$20 BILLION + overruns debt for a project that can ONLY guarantee HUGE debt? Not water," she stated.

Orion Camero, a Delta and Bay Area activist that formerly served on the staff of Restore the Delta, put Newsom's drive to build the tunnel in the larger context of water privatization.

"Repackaging destructive infrastructure does not change the grave impact of corporate privatization of water, using the same contested strategies as the peripheral canal in the 1980s," said Camero. "We need to be more imaginative beyond extracting water unsustainably from this fragile ecosystem. There are better solutions."

Frank Egger, President of the North Coast Rivers Alliance, noted that the California salmon season, including both commercial and recreational fishing on the ocean and recreational fishing in the Klamath and Sacramento River watersheds, has been shut down for the past two years. A third year closure for 2025 is a possibility, based on the abysmally low numbers of fish returning to the Upper Sacramento River.

"Fishers are losing their boats and their livelihoods, hundreds of millions of dollars in commerce and sales will be lost annually," Egger stated. "The significant adverse impact of the Delta Tunnel on California's fisheries is similar to the previously proposed Peripheral Canal. Instead of going around the Delta, the Tunnel would be constructed under the Delta."

"Having been a locally elected public official with responsibility for dealing with water use and wastewater treatment and discharge, I fully understand where these water agencies are coming from.

They are in the business of 'selling water;' the more water they can sell, the more staff they can hire and then find more water to sell. It's like a dog chasing its tail, they can never catch up no matter how much water they are given," he explained.

Egger also exposed the ties between the Delta, Sites Reservoir and the proposed 18-½ foot raise on Shasta Dam that incoming Donald Trump administration is expected to push.

"The Delta Tunnel creates no new water," he noted. "In fact, the linchpins of the Delta Tunnel are the Sites Reservoir and the 18 & 1/2 foot dam raise on Shasta Dam. Chinook and Coho Salmon are teetering on extinction. Extinction is forever."

In a similar vein, TB Sletteland, Founder and Executive Director of the Sacramento River Council, said the tunnel "is a boondoggle which is not needed and would come at an exceedingly high price to the environment. The extirpation of the winter and spring runs of Chinook salmon will not be allowed and will be a good cause for litigation."

Dr. Jeanine Pfeiffer, ethnoecologist and Tribal consultant, asked, "Where is the much-needed emphasis on water conservation in the face of increased climate-change induced droughts?"

"We have not seen any mention of more efficient water use and recovery anywhere in any of the State's press releases about the Delta Conveyance Project. We could be investing in cutting-edge water recovery, recycling, and purification facilities instead of wrecking aquatic ecosystems and the endangered fishes that depend on them," she concluded.

Niria Alicia Garcia, organizer with the Winnemem Wintu Run4Salmon, talked about the bigger picture of the tunnel within the context of the destruction of Mother Nature.

"Humans belong to a larger ecosystem of life that's interconnected with many other species," Garcia stated. "We can't continue destroying Mother Nature without considering the negative impacts this will have on the more than human world. The aquifer of the Delta would be completely destroyed and that can't ever be replaced. The destruction to the Delta is unconscionable. The salmon need the natural springs to survive, along with all the other water beings who need the Delta to be restored, not destroyed."

"We need to learn to live within the means instead of continuing to destroy nature for our societal exponential growth," she concluded.

Again, the Delta Conveyance Project is the latest version of a massive water infrastructure project that would divert water from the Sacramento River at Hood and Courtland — and put it in a 40+ mile tunnel for use by State Water Project contractors.

Water Board Will Hold Hearing On Delta Tunnel Project in February and March 2025

In other Delta Tunnel news, the State Water Resources Control Board Administrative Hearings Office (AHO) will hold a public hearing about the Delta Conveyance Project (DCP), AKA Delta Tunnel, on February 18 and March 25, 2025.

The hearing will be held at the Joe Serna CalEPA Building, Sierra Hearing Room, Second Floor, 1001 I Street, in Sacramento starting at 9 a.m. People can participate both in person and via Zoom.

The hearing will address the water right change petitions filed by the Department of Water Resources (DWR or Petitioner) that propose to add two new points of diversion (PODs) and rediversion (PORDs) to water right Permits 16478, 16479, 16481, and 16482 (Applications 5630, 14443, 14445A, and 17512, respectively) (State Water Project Permits).

"The purpose of the hearing is to gather evidence that the State Water Board will consider to determine whether to approve the petitions and, if so, what specific terms and conditions the Board should include in the amended SWP Permits," according to a notice from the Water Board. "The hearing will begin on February 18, 2025, with the presentation of oral policy statements by interested persons or entities and discussion of outstanding procedural issues. The hearing will continue on March 25, 2025, with presentation by the Petitioner of case-in-chief testimony. The AHO will conduct a third pre-hearing conference on December 16, 2024."

"The purpose of this hearing is to develop an evidentiary record on which the State Water Board will rely in acting on the petitions to change the SWP Permits to authorize operation of the proposed Delta Conveyance Project. This hearing will necessarily be highly complex — procedurally, factually, and legally. But the hearing is made even more complex because the time period for the Petitioner to perfect beneficial use of its water rights under the SWP Permits has expired," the Board stated.

"The Petitioner has not perfected the full amount authorized to be appropriated under the SWP Permits but filed these petitions for change without filing companion petitions to extend the time allowed to complete beneficial use. As a result, the Board must consider and act on the change petitions without knowing whether the Board will, at some future time, grant any petitions for extension of time yet to be filed by the Petitioner or whether the Board will revoke a portion of the SWP Permits," the Board concluded.

Parties Appeal Certification for Delta Tunnel Geotechical Activities

In more Delta Tunnel news, the Delta Stewardship Council reports that the following parties have appealed the California Department of Water Resources Certification of Consistency (C20242) for the 2024-2026 Proposed Geotechnical Activities for the Delta Conveyance Project, which was submitted to the Delta Stewardship Council on October 8, 2024:

C20242-A1 – San Francisco Baykeeper, Winnemem Wintu, Shingle Springs Band of Miwok Indians, California Indian Environmental Alliance, Friends of the River, Center for Biological Diversity, Save California Salmon, California Sportfishing Protection Alliance, Golden State Salmon Association and Restore the Delta.

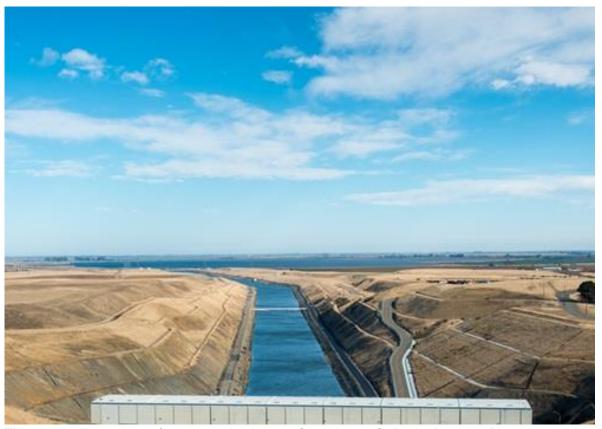
C20242-A2 – South Delta Water Agency

C20242-A3 – County of Sacramento, Sacramento County Water Agency, Sacramento Area Sewer District, City of Stockton

C20242-A4 - County of San Joaquin, Central Delta Water Agency, Local Agencies of the North Delta

The effective date for the appeals is November 7, 2024 (23 Cal. Code Regs. \S 5022, subsection (d)(2)).

Public Review Begins for Bay-Delta Plan Revisions, Comment Period Ends Soon Valley Ag Voice | November 27, 2024 | Staff



This view looks northeast from the embankment of the Harvey O. Banks Pumping Plant, toward the intake channel and the Clifton Court Forebay in the distance. (Photo: DWR 2013).

The State Water Resources Control Board staff released draft updates to the Bay-Delta plan on Nov. 6 for public review. The draft covers potential updates to the Water Quality Control Plan for the San Francisco Bay/Sacramento San Joaquin Delta Watershed.

State law requires California's water board to create and review plans to protect water quality in rivers and other surface waters. These draft updates are focused on the Sacramento River watershed, Delta eastside tributaries, and Delta for the "reasonable protection of fish and wildlife beneficial uses."

The draft updates focus on protecting fish in the Sacramento River system and build on previous efforts to increase fish populations in the San Joaquin River. Staff have suggested regulating 45% to 65% of natural river flow for salmon and steelhead populations.

Based on comments on this draft, State Water Board staff will develop a revised draft of proposed updates to the Bay-Delta Plan for additional public comment and board consideration. The draft updates are available for public review on the SWB website.

The deadline for written comments on the draft updates is Dec. 19, 2024 — the board will not accept further comments on the previously released draft Staff Report. Comments can be submitted by email to SacDeltaComments@waterboards.ca.gov with the subject "Comment Letter – Draft Sacramento/Delta Bay-Delta Plan Updates."



New Alameda Creek project boosts fish access

Thanks to a \$4.3 million grant, the last fish barrier will be removed from Alameda Creek Tri-City Voice | December 3, 2024 | Rob Klindt



Officials inspect the PG&E gas pipeline protective apron over Alameda Creek near Sunol. Photo by California Trout

A collective cheer is in the air as many environmentalists, wildlife enthusiasts, Alameda County officials and residents celebrate news that funding to remove the last man-made barrier to fish passage in Alameda Creek has been secured.

Claire Buchanan, Bay Area Senior Project Manager for California Trout (CalTrout), a non-profit agency focused on ensuring healthy waters and resilient fish populations in the state, said a new \$4.3 million grant will be used to lower a PG&E gas pipeline that spans the creek about 12 miles upstream from the creek's terminus into the bay. Known as the Sunol Valley Fish Passage Project, it is the last of 16 fish passage projects in the Alameda Creek watershed completed in the last 20 years.

Urbanization in the lower 12 miles of the creek in the Fremont area has choked portions, preventing native Chinook salmon and steelhead from traveling to upstream watersheds to spawn. Previous large fish passage projects on the creek include the installation of fish ladders

at the Fremont BART station weir and at the inflatable bladder dams near Niles, both done by the Alameda County Water District (ACWD).

Years of preparation

"This project has been in the works in some way shape or form since about 2012," Buchanan said, adding that the grant is from NOAA Fisheries, a federal agency focused on natural resource conservation. "We at CalTrout only got involved in July of last year when the project was already at 65% design," Buchanan noted. As lead agency on this latest project CalTrout was tasked with coordinating the efforts of other project partners and for navigating permit processes and lining up grant applications. The grant came through in October.

In addition to ACWD, other partners on the project working under the umbrella of Alameda Creek Fisheries Work Group, include Alameda Creek Alliance, Alameda County Flood Control & Water Conservation District, California Department of Fish and Wildlife, San Francisco Public Utilities Commission, Zone 7 Water District, Alameda County Resource Conservation District, Trout Unlimited and the National Marine Fisheries Service.

Alameda Creek flows from Packard Ridge in the Diablo Range east of San Jose, for about 40 miles until it reaches Fremont where the lower 12 miles of creek are guided through a flood control channel into San Francisco Bay. The upper watershed is more untouched by development and suitable for fish spawning.

Sinking the pipeline

The PG&E pipeline, built in 1963, spans the creek near the Highway 680 overpass in Sunol Valley and is topped by an erosion control apron built from concrete and rock that protrudes above the water. This creates a barrier preventing salmon, lamprey and other anadromous fish—which spend part of their lives in both fresh and salt water—from easily reaching the upper watershed.

Work on the project will start in June 2025 when fish traffic is lower and continue through October. The project will sink the pipeline between 17 and 20 feet below the creek level and remove the erosion control apron to allow easier passage to upper portions of Alameda Creek.

While PG&E is paying the lion's share of work to move the pipeline, additional funding was needed for supplemental work to complete the project. Buchanan said the last chunk of cash—the \$4.3 million grant—is dedicated to revegetation and regrading after the PG&E work is done.

A healthy ecosystem

Jeff Miller, Founder and Director of Alameda Creek Alliance (ACA), a non-profit group dedicated to bringing salmon and steelhead back to Alameda Creek applauded the latest development. "Salmon and steelhead, even though they live in the creek, are tied to everything that happens in the entire watershed because anything that happens in urban development like roads or pollution that comes into the creek or land management upstream is all eventually going to impact the stream and fish habitat."

In the late 1990s the Central California Coast population of steelhead trout was listed as a threatened species under the federal Endangered Species Act, and salmonid populations were declining across the state. This prompted Miller's efforts to form ACA and push public agencies into partnership and action to help clear fish barriers on Alameda Creek.

Because much of the Bay Area's water supply flows through Sunol Valley from Hetch Hetchy reservoir in the Sierra Nevada mountains, the waterway in Alameda Creek is crucial to public health. Additionally, the creek flows near the backyards of hundreds of residents who also may be impacted by pollution, ecological changes or development near the creek.

"It's good to remind people that anadromous fish are a good ecosystem indicator," Buchanan said. "If you have salmon and steelhead in your backyard, it's a great indication that you are living in a good and healthy ecosystem."



California sets initial State Water Project allocation at 5% following hot, dry stretch LA Times | December 2, 2024 | Ian james



The California Aqueduct, which transports water from the Sacramento-San Joaquin River Delta to Southern California, runs near Highway 165 in Los Banos.(Brian van der Brug/Los Angeles Times)
By Ian James

California water managers have announced their preliminary forecast of supplies that will be available next year from the State Water Project, telling 29 public agencies to plan for as little as 5% of requested allotments.

The state Department of Water Resources said Monday that the initial allocation is based on current reservoir levels and conservative assumptions about how much water the state may be able to deliver in 2025.

"We need to prepare for any scenario, and this early in the season we need to take a conservative approach to managing our water supply," DWR Director Karla Nemeth said.

Last year, the state's initial forecast was 10% of requested supplies, but the allocation was increased to 40% in the spring.

Officials said the initial water supply forecast does not take into account the series of storms that drenched much of the state in the last two weeks of November. The storms pushed precipitation to above-average levels in Northern California for this time of year.

"Based on long-range forecasts and the possibility of a La Niña year, the State Water Project is planning for a dry 2025 punctuated by extreme storms like we've seen in late November," Nemeth said. "What we do know is that we started the water year following record heat this summer and in early October that parched the landscape."

She said officials considered runoff forecasts that account for how the hot, dry conditions in the summer and October left parched soils. When soils are too dry, runoff from the mountain snowpack will typically be soaked up by the ground, reducing the amount of water flowing in streams and rivers to reservoirs.

A weak La Niña is forecast to appear this winter, and NOAA forecasters have said the pattern will likely bring drier-than-average conditions in much of the Southwest. They have also said, however, that the outlook is uncertain for much of California.

The State Water Project's aqueducts and pipelines transport water from the Sacramento-San Joaquin River Delta to 29 water agencies that supply 27 million people.

State officials update the allocation monthly and may increase their forecast based on the rainfall, snowpack and reservoir levels. A final allocation for the State Water Project is typically announced by May or June.

While the initial forecast is relatively low, the allocation should increase in the coming months, said Deven Upadhyay, interim general manager of the Metropolitan Water District of Southern California, which supplies water for 19 million people across six counties from Ventura to San Diego.

Southern California is continuing to benefit from the enormous quantity of water that flowed into reservoirs during 2023, one of the state's wettest years on record.

Diamond Valley Lake, the largest drinking water reservoir in Southern California, is now 97% full. And the MWD is projected to finish the year with a record 3.9 million acre-feet of water banked in various reservoirs and underground storage areas.

"Our storage going into the end of the year is very good," Upadhyay said.

The region has been able to store such large reserves in part through progress on conservation and investments in expanding water storage, he said.

The stored water will help "buffer us in the near term" if 2025 turns out to be a dry year, Upadhyay said, while the agency focuses on efforts to prepare for the next drought and the effects of climate change.

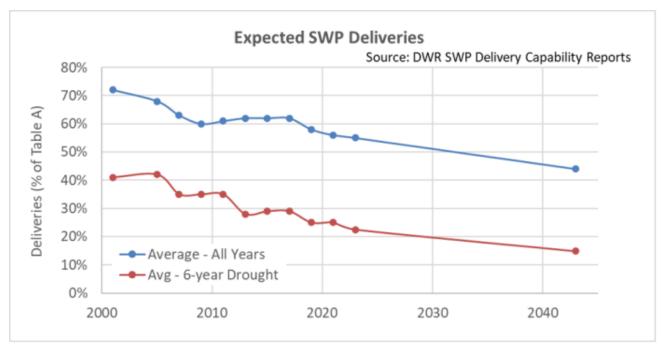
He said that includes, for example, implementing California's newly adopted rules setting long-term conservation goals for urban suppliers, and investing in a plan to build an \$8 billion water recycling facility.

"As we're thinking about water supply management, we're less focused on the year to year variation, and we're more focused on how do we invest in things that will allow us to be reliable for the long term," Upadhyay said. "We want to make sure that we've got that long-term balance in view."



Reductions in SWP Deliveries Expected to Continue

Valley Ag Voice | November 27, 2024 | Scott Hamilton



Changes in projections of average annual deliveries of regulated water from the State Water Project. Each dot represents projections in a new updated report from the Department of Water Resources. The yield estimates for 2043 are from the 75% level of concern.

Roughly every two years, the California Department of Water Resources issues its "Delivery Capability Report" for the State Water Project (SWP). Those studies estimate the amount of SWP water that can be delivered each year, based on simulations of current facilities and regulations applied to over 70 years of historic hydrology. The first study conducted in 2001, indicated that on average, 72% of contracted water entitlements could be delivered annually. During a 6-year drought, average deliveries would drop to 41% of the contracted amount. Since then, regulations to protect endangered fish have reduced exports. DWR just released its 2023 Delivery Capability Report. Average annual deliveries are now estimated at 55% of contracted entitlement with deliveries through a six-year drought now expected to be 23%.

Usually, the Department will also provide forecasts which consider predictable future changes in supply. In the 2023 report, they considered the consequences of different levels of climate change. Climate change is expected to affect project yield in two ways. First, more precipitation is expected to come as rain rather than snow. Reservoirs that are being operated for flood protection have to release that runoff to preserve capacity for future flood events. Those releases do not often result in an increase in exports because there is no additional capacity available downstream to store that water. Second, with sea level rise, additional freshwater releases are needed to push salinity intrusions to maintain water quality for in-Delta uses. In the 2023 report, the Department considered three climate change scenarios (50%, 75%, and 95% level of concern). The middle one suggested average SWP deliveries would be 44% of

contracted entitlement and the six-year drought would be 15%. Compared to the studies in the 2021 report, that is a loss of 28% of contract entitlement — around 280,000-acre feet per year for Kern County. The losses through a six-year drought are lower but similar.

The declines in SWP deliveries not only impact deliveries of regulated supplies for irrigation, but they also affect the quantity of water available for recharge – the "Article 21" water from the SWP. In 2001, the annual average was 130,000 af/year. That's down to 86,000-acre feet per in the 2023 study, factoring in climate change. That water, stored in wet years, is recovered in dry years and is desperately needed in Kern County to endure droughts.

Unlike some of the more northern rivers, Kern County has very little unused local water. In the very wet year of 2023, Kern County beneficially used or stored almost all of the Kern River runoff. That is, there is very little additional Kern River water to capture. Years wetter than 2023 occur an average of once in 25 years. While more recharge capacity could be built to capture water in those wet years, it is generally not economical to build facilities that will be used so infrequently.

Historically, Kern County has recharged surplus water from the Friant system. But as water districts on the east side of the Valley also struggle to achieve groundwater sustainability and prevent further subsidence on the Friant-Kern Canal, it is unlikely that surplus Friant water will be available for much longer. Kern's CVP contractors (Southern San Joaquin Municipal Water District, Shafter-Wasco Irrigation District, and Arvin-Edison Water Storage District) will be able to increase their deliveries for recharge from the Friant-Kern Canal and all have plans to do so. That may increase supplies to those districts by around 40,000 af/year in total, but the opportunity is limited currently by upstream subsidence in a long stretch of the Canal north of the county line.

These are foreboding projections for Kern County. With only relatively small increases in deliveries from the Friant as well as a need to reduce groundwater pumping to achieve groundwater sustainability under SGMA, it is likely to result in a loss of around 150,000 acres – 20% of the irrigated acreage in Ken County. Values for farmland with limited water resources are expected to continue to decline. Property tax revenues will decline but will likely be mitigated by increasing tax revenues for property owners with water supplies. The decline in water supplies will also result in the loss of jobs both on the farms and in the industries that support agriculture.

The options for improving supplies are few but deserve attention – removal of Delta regulations that cost water but are not effective in protecting endangered fish, and new infrastructure in the Delta that allow for increased diversions in the winter and spring without harming fish.