

XIII.



---

## MEMORANDUM

---

**TO:** SAN LUIS & DELTA-MENDOTA WATER AUTHORITY DIRECTORS  
**FROM:** DAN KEPPEL, EXECUTIVE DIRECTOR  
**SUBJECT:** UPDATE REPORT  
**DATE:** FEBRUARY 6, 2023

---

This memo is intended to keep you apprised as to what is happening on policy issues the Family Farm Alliance (Alliance) is engaged in. In the past month, much of our efforts have focused on planning for our 2023 annual conference, tracking new water legislation, engaging in litigation and administrative matters, and expanding public outreach associated with global food insecurity and the importance of Western irrigated agriculture. These issues and other matters important to our members are further discussed in this memo.

### BIDEN ADMINISTRATION

#### 1. White House

President Joe Biden recently announced that he's creating a new "investment in America Cabinet" to focus on implementing massive pieces of climate and infrastructure legislation. The president said he's creating a new sub-Cabinet that will include the secretaries of Commerce, Labor, Transportation and Health and Human Services. Energy Secretary Jennifer Granholm and EPA Administrator Michael Regan will also be on the team.

##### a. State of the Union Set for February 7: FY 2024 Budget Delayed

President Joe Biden has accepted House Speaker Kevin McCarthy's (R-CALIFORNIA) invitation to deliver the State of the Union address on February 7, 2023. President Biden is expected to speak to a range of pressing issues, from the war in Ukraine to the looming US debt-ceiling fight. Meanwhile, we have heard the President's FY 2024 Budget Request, usually set to be released the

first Monday in February, will be delayed until mid-March at the earliest. The delay is mostly due to the late passage of the FY 2023 omnibus spending package in December.

b. California Wants to Turn Atmospheric Rivers into Water Supply

Vice President Kamala Harris visited her home state of California last month, stating that the state must prepare to balance "days of immense water" with the persistent drought that has gripped the region for more than two decades. She said that the state must "diversify" their approach "in terms of conservation to recycling, desalination and storage of water." The Vice President touted recent funding, including \$4 billion from the Inflation Reduction Act aimed at mitigating drought in the Colorado River Basin. The Colorado River supplies California with 4.4 million acre-feet of water annually. The drought-stricken state has struggled more recently with a deluge of precipitation from nine atmospheric rivers, 95% of which flowed to the ocean instead of to storage reservoirs, something state officials are looking to change.

c. CEQ Hires Western Drought/Resilience Director

The Biden Administration's Council on Environmental Quality (CEQ) has hired Kristen Averyt as CEQ's new Director for Drought and Western Resilience. Ms. Averyt brings experience on climate resilience and drought after serving as senior climate adviser for the State of Nevada's then-Gov. Steve Sisolak (D). She led climate planning and policy development for the former Governor, who lost his reelection bid last year to Republican Joe Lombardo. Ms. Averyt has also served as president of the Desert Research Institute (DRI) and as a research professor at the University of Nevada – Las Vegas. She holds a doctorate from Stanford University in geological and environmental sciences. Ms. Averyt joins Crystal Bergemann, CEQ's Senior Director for Resilience, to expand the office's work on climate resilience. Bergemann joined the Biden CEQ in October to play a key role in leading the administration's "all-of-government" approach to protecting communities from extreme weather.

d. CEQ: Tweaking NEPA Review to Account for Climate Change

The White House Council on Environmental Quality (CEQ) last month released updated guidance that calls for federal agencies to take a broader look at the climate change impacts from major new infrastructure projects, government policies and federal decisions. The CEQ interim policy, [Reg. 0331-AA06](#), which takes effect immediately, is an effort to provide clearer guidance for how federal agencies should assess greenhouse gas emissions through the National Environmental Policy Act (NEPA). The guidance will likely stall progress on the reviews of projects ranging from pipelines to federal policy actions, since agencies will be instructed to consider not only the amount of greenhouse gases federal projects and decisions directly cause, but also the effects a warming world will have on the nation and its infrastructure. That reverses Trump administration NEPA guidance, which had narrowed agencies' review of the effect major federal decisions have on climate change. It also asks agencies to tally annual greenhouse gas emission increases or reductions, net greenhouse gas emissions over the lifetime of the proposed action, translate climate



effects into comparable metrics — such as monetary damage from rising emissions — and to account for environmental justice concerns, including the cumulative effects of a decision on pollution, climate change and the environment. The notice was published in the Federal Register on January 9.

e. New Strategy to Account for “Value of Nature” in Decision-Making

The Biden Administration has unveiled a 15-year strategy to incorporate the value of the “natural world”, including assets like clean air and water alongside traditional national economic statistics like gross domestic product in making federal decisions. The plan, called the [National Strategy to Develop Statistics for Environmental-Economic Decisions](#), aims to account for the value of assets ranging from minerals to clean water, as well as the impacts of climate change and biodiversity loss. The strategy was first [announced in August](#) and will be implemented over a 15-year period, relying in part on existing data as well as new statistical analyses.

2. EPA-Corps: Final Revised WOTUS Rule

As previously reported, on the day before New Year’s Eve, the Biden administration Environmental Protection Agency (EPA) and the Army Corps of Engineers (Corps) finalized their [rule](#) redefining “waters of the United States” (WOTUS) subject to jurisdiction under the federal Clean Water Act (CWA). The agencies touted the final rule as a “durable” policy that returns to pre-2015 standards while comporting to Supreme Court decisions and introducing several new exclusions from federal jurisdiction, including six new waivers for agricultural lands (see the [public fact sheet](#), the [ag fact sheet](#) and the [land owners fact sheet](#) for the newly finalized WOTUS rule). The final rule aims to apply both competing tests that the Supreme Court set out in the 4-1-4 *Rapanos v. United States* decision – the “significant nexus” and “relatively permanent flow” tests. Previously, the Administration stated that the current final rule would be just “Phase I” of a two-part rulemaking on WOTUS, indicating that another rule would be proposed by late 2023 that would provide a “durable” WOTUS definition, but the agencies’ announcement made no mention of another rulemaking, stating that this final rule would provide a “durable definition” of WOTUS.

a. SCOTUS Implications

The new rule also comes as the Supreme Court is already weighing a decision in *Sackett v. EPA*, which deals with the jurisdictional standard for wetlands under the CWA. According to sources, a majority decision expected from the more conservative wing of the high court in *Sackett* could derail much of the final WOTUS rule. In fact, many House and Senate GOP Members and several trade organizations representing those impacted by CWA implementation denounced the rulemaking as overreaching and premature due to the *Sackett* case currently before the court. – Over 190 House Republicans in a [letter](#) blasted the Biden Administration for its “premature and reckless” WOTUS final rule. The Members demand EPA and the Corps rescind the rule and postpone any subsequent agency action on WOTUS to allow the Supreme Court to issue an opinion



on *Sackett*. The Congressional Western Caucus included a quote from me in their “What Others are Say” document that was shared with the media last month. Agriculture and water groups (including the Alliance) have asked the justices in an amicus brief to reinterpret the CWA and exclude most wetlands and streams from the definition of WOTUS.

b. Red States/Industry Groups File Lawsuits

Red states, beginning with Texas, are starting to file challenges against the new final WOTUS rule. The publication of the regulation triggers a 60-day deadline for lawsuits before the rule takes effect in mid-March. Legal challenges to the Biden Administration’s final WOTUS rule are expected in multiple federal district courts across the country. Besides the states, a coalition of industry groups representing oil and gas, mining, real estate, and farming interests, argue in their [complaint](#) filed in the U.S. District Court for the Southern District of Texas that the Biden Administration’s new definition of WOTUS is “unworkable” and conflicts with the CWA, the Constitution and Supreme Court precedent.

c. House Republicans Introduce Bill to Reverse Biden WOTUS Rule

House Committee on Transportation and Infrastructure (T&I) Chairman Sam Graves (R-MO) and Water Resources and Environment Subcommittee Chairman David Rouzer (R-NC) led 147 Members of Congress last week in introducing a joint resolution of disapproval under the Congressional Review Act (CRA) on the Biden Administration’s WOTUS rule. [Click here to view the legislation.](#) [Click here to view the list of all 147 cosponsors.](#) Subcommittee Chairman Rouzer has also announced that the Subcommittee will hold a hearing on February 8, 2023, examining the effects of the WOTUS rule. The hearing, entitled, “Stakeholder Perspectives on the Impacts of the Biden Administration’s Waters of the United States (WOTUS) Rule,” will be held at 10:00 a.m. EST on Wednesday, February 8, 2023, in 2167 Rayburn House Office Building.

3. Bureau of Reclamation: New Project Funding Announcements

a. \$580 Million Investment to Fulfill Indian Water Rights Settlements

The Department of the Interior recently announced a nearly \$580 million allocation to continue fulfilling settlements of Indian water rights claims using funding from President Biden’s Bipartisan Infrastructure Law and the Reclamation Water Settlements Fund. There were 34 [congressionally enacted Indian Water Rights settlements](#) as of November 15, 2021, when the Bipartisan Infrastructure Law was signed. Indian reserved water rights are vested property rights for which the United States has a trust responsibility. Federal policy supports the resolution of disputes regarding Indian water rights through negotiated settlements. Settlement of Indian water rights disputes breaks down barriers and helps create conditions that improve water resources management by providing certainty as to the rights of all water users who are parties to the disputes.

b. WaterSMART Environmental Water Resources Projects

The Bureau of Reclamation has announced the [FY 2023 WaterSMART Environmental Water Resources Projects program](#). Run for the first time in FY 2022, this program provides funding for projects focused on environmental benefits and that have been developed as part of a collaborative process to help carry out an established strategy to increase the reliability of water resources. Projects with multiple benefits to watershed health are encouraged and prioritized. Applicants may request funding in three categories:

- Category A: Water conservation and efficiency projects that result in quantifiable and sustained water savings and benefit ecological values.
- Category B: Water management or infrastructure improvements to benefit ecological values or watershed health.
- Category C: Restoration projects benefitting ecological values or watershed health that have a nexus to water resources or water resources management.

Eligible applicants are states, tribes, irrigation districts, water districts, and other organizations with water or power delivery authority located in the Western United States. Nonprofit conservation organizations working in partnership with the entities listed above or that notify entities listed above are also eligible to apply. In FY 2023, an unspecified amount of funding is available to support approximately 20-40 awards of up to \$3 million through this program – this is an increase from FY22 which allowed for a maximum request of \$2 million. A 25% cost share is required for projects that meet specific requirements. For projects that do not meet these requirements, a cost share of 50% or more of total project costs is required. **Applications are due March 28, 2023.**

4. Forest Restoration and Wildfire Prevention Funding Announced

Secretary of Agriculture Tom Vilsack [announced](#) on January 19 that over \$490 million has been allocated to 11 forest restoration and wildfire prevention projects, including for about 10 million acres in the Klamath River Basin and other projects in California, Arizona, Idaho, Oregon, Utah and Washington. Funding came from the Inflation Reduction Act, which provided \$5 billion in additional funding available to the Forest Service for fuels reduction and forest treatments.

5. U.S. Army Corps of Engineers: WRDA Implementation

On January 20, the Army Corps of Engineers published a Federal Register notice (88 FR 3729) requesting comments on the implementation of the 2022 Water Resources Development Act (WRDA). The comment period ends March 21. Comments may be submitted to the [www.regulations.gov](http://www.regulations.gov) docket #COE-2023-0002, or to [WRDA2022@usace.army.mil](mailto:WRDA2022@usace.army.mil). The notice also announced three virtual stakeholder meetings to provide input on WRDA provisions on February 15, 22, and March 1. For further information, see:



<https://www.usace.army.mil/Missions/Civil-Works/Water-Resources-Development-Act/#LatestWRDA>.

6. **Environmental Protection Agency (EPA): Tougher Regulation of Livestock Farms?**

EPA says it will study whether to toughen regulation of large livestock farms that release manure and other pollutants into waterways. EPA has not revised its rules dealing with the nation's largest animal operations — which hold thousands of hogs, chickens and cattle — since 2008. The agency said in 2021 that it planned no changes but recently announced that it had reconsidered in response to an environmental group's lawsuit. While not committing to stronger requirements, EPA acknowledged needing more recent data about the extent of the problem — and affordable methods to limit it. Food & Water Watch, whose lawsuit prompted the agency's reversal, said a new approach was long overdue.

Livestock groups have said government regulation is strong enough and that voluntary measures such as planting off-season cover crops and buffer strips between croplands and waterways are the best way to curb runoff. Environmental groups argue that regulations should cover more farms; require better construction of manure lagoons to avoid leaks; and outlaw practices such as spreading waste on frozen ground, where it often washes away during rainstorms or thaws.

## DEVELOPMENTS IN CONGRESS

The 118<sup>th</sup> Congress has convened and both U.S. House of Representatives and U.S. Senate leadership are finalizing committee assignments. Our voice in Washington, D.C., The Ferguson Group, has compiled the [118th Congressional Committee Assignments Special Report](#) which includes all Chair and Ranking Members on House and Senate Committees. Along with this, you can access committee websites for the most up-to-date information on membership, subcommittee assignments, and recent actions.

In the House, we work closely with the Committee on Natural Resources, particularly with House Water, Oceans and Wildlife Subcommittee, which has now been renamed the Water, Wildlife and Fisheries (WWF) Subcommittee. Some notable factoids about this Committee:

- Rep. Westerman (R-AR) is the new Committee Chair; he is a forester and worked closely with the Alliance in the last Congress when he was the Ranking Member of the Committee.
- Rep. Cliff Bentz (R-OR) will chair the WWF Subcommittee. He is my Congressman and will be the keynote speaker at our annual conference later this month in Reno.
- Rep. Paul Gosar (R-AZ) is back on the Committee after Democrats kicked him off last year for posting a controversial video.
- New Rep. Harriet Hageman (R-WYOMING) and I went to school together at the University of Wyoming back in the 1980s!
- New California Congressman John Duarte will join the Committee.

On the Democrat side of the aisle, Rep. Melanie Stansbury (D-NM) – who we’ve worked with since her time as a staffer on the Senate Energy and Natural Resources Committee – is the new Ranking Member on the Oversight and Investigations Subcommittee. Rep. Alexandria Ocasio-Cortez (D-NY) – a newcomer to this committee – is the Ranking Member on Energy and Mineral Resources, where she will likely push her strong climate change agenda.

We also work closely with the Western Caucus, which in this Congress is well represented on the House Agriculture and Natural Resource Committees; every single Subcommittee Chair is a Member of the Western Caucus. Senator Cynthia Lummis (R-WYOMING), an old friend of the Family Farm Alliance (she and Alliance President Patrick O’Toole served together in the Wyoming State Legislature) is the new Chair of the Senate Western Caucus. We also have a close relationship with Rep. Dan Newhouse (R-WASHINGTON), Chairman of the Congressional Western Caucus.

#### **7. Root and Stem Project Reauthorization Act**

Rep. Newhouse and Rep. Scott Peters (R-CALIFORNIA) recently introduced the bicameral *Root and Stem Project Reauthorization Act* alongside Senators Steve Daines (MONTANA) and Dianne Feinstein (CALIFORNIA). This legislation provides the U.S. Forest Service and Bureau of Land Management with a clear statutory tool to treat forests more efficiently and empower collaborative processes through “Root & Stem” projects. By authorizing the U.S. Forest Service and Bureau of Land Management to propose and enter collaborative stewardship contracts and agreements, this legislation will allow the agencies to accomplish more hazardous fuels reduction and empower the agencies to engage with state, local, and tribal partners to ensure forest management projects compliment ongoing conservation efforts, benefit communities, and protect local ecosystems. Click [here](#) for bill text. The Family Farm Alliance formally supported similar legislation in the last Congress, which passed the Senate last December.

#### **8. House Republicans Reintroduce Water Bills**

Last month, House Republicans introduced several water bills focused on improving available water supplies in drought conditions. Rep. David Valadao (R-CALIFORNIA) reintroduced his *Working to Advance Tangible and Effective Reforms (WATER) for California Act*, [H.R. 215](#). The bill was cosponsored by the entire California GOP House delegation and would, among other things, mandate the Trump-era biological opinion under the ESA that would allow for more water to be made available to agriculture in the Central Valley via the federal Central Valley Project and the State Water Project. The Biden Administration is currently reconsulting on that opinion.

And, Rep. Tom McClintock (R-Calif.) also reintroduced [H.R. 186](#), the *Water Supply Permitting Coordination Act*, with Rep. Valadao as a co-sponsor. The bill would streamline permits for new water storage projects by designating Reclamation as the coordinating agency for federal environmental permits.



Rep. Doug LaMalfa (R-CALIFORNIA) introduced the *Protect Our Water Rights* (POWR) Act (H.R. 289). The bill directs Reclamation operations in the CVP and Upper Klamath Lake. Sacramento Valley contractors' allocations would align with the percentages in the Sacramento Water Year Type Index, with not less than 100% of their contract quantities in Wet and Above Normal Years, not less than 75% in Below Normal years, and not less than 50% in Dry and Critically Dry years. The bill provides additional conditions regarding substitute supplies, making water available to wetlands, protection of municipal and industrial water supplies, and protection of other operations, deliveries, and allocations to other Reclamation project contractors. The bill also directs Reclamation to operate all water in the Upper Klamath Lake above elevation 4136 feet solely for agricultural and refuge purposes associated with state-adjudicated water rights, and to the extent practicable, maximize storage in the lake.

California's simultaneous drought and flood emergencies are raising questions about the state's overall approach to water supplies. On January 13, six members of Congress sent [a letter](#) to President Joe Biden and California Governor Gavin Newsom seeking action in response to the recent storms.

#### **9. Forest Information Reform Act**

Rep. Matt Rosendale (R-MONTANA) recently introduced legislation to overturn a 9th U.S. Circuit Court of Appeals decision in 2015 that has forced the Forest Service to consult with the FWS on forest management plans when new information arises about potential threats to endangered species. Rep. Rosendale's H.R. 200 mirrors a bill he introduced in 2021, called the "Forest Information Reform Act". Rosendale and Sen. Steve Daines (R-Mont.) tried unsuccessfully to attach language to last December's omnibus spending package. In practice, the ruling in *Cottonwood Environmental Law Center v. Forest Service* has slowed some forest work like projects to reduce wildfire threats and improve wildlife habitat. In August, the Property and Environment Research Center in Bozeman, Mont., reported that 130 projects in the West had been delayed as a result of the ruling.

#### **10. 2023 Farm Bill**

The farm bill is an omnibus, multiyear law that is typically renewed about every five years. With enactment of the omnibus spending bill in December 2022, lawmakers laid the groundwork for battles to come in the next farm bill. The current farm bill expires at the end of September. The planning and budgeting process for the 2023 Farm Bill has begun, and Congressional Agriculture committees are starting to outline the next five years' spending for national conservation, food, farm and nutrition programs.

*Politico* recently reported that the House leadership chaos of January 2023 may have wide implications for the farm bill — including holding up work on the bill and complicating its eventual path to passage. However, the House and Senate Agriculture Committees are poised to focus on debating a new farm bill after lawmakers used the newly enacted omnibus funding package to



clear their to-do lists. House Ag Republicans will make increasing oversight of the Supplemental Nutrition Assistance Program and other nutrition programs a general priority in this Congress. GT Thompson, the new chair of the House Ag Committee, has suggested he'll quickly launch probes into the Biden administration's expansion of food assistance programs during the pandemic, along with the Agriculture Department's rollout of climate-ag program funding.

a. Family Farm Alliance Farm Bill Priorities

The Alliance throughout 2022 prepared for the next farm bill by engaging with agricultural and conservation partners, developing written testimony for Congressional hearings, and working with its members to prioritize its energies in the farm bill debate. Last month, we put together our Farm Bill "wish lists" for Congressional offices and committees. Outside of WACC engagement, the Alliance this year will continue to work directly with Congressional agriculture committee staff and Western Members of Congress on the next farm bill. Alliance President Pat O'Toole met Senator John Hickenlooper (D-COLORADO) directly to discuss the 2023 Farm Bill.

A large portion of the energies at the Alliance will be devoted to the 2023 Farm Bill conservation title. Once again, the Alliance will work closely on this with its partners in the Western Agriculture and Conservation Alliance (WACC). In light of what could likely be a polarized and unstable environment in the House, it will be interesting to see what legislation is actually enacted by the body. In this divisive political environment, a thoughtful group like the WACC is needed more than ever.

b. Watershed and Flood Prevention Operations Program

The Alliance and many of its members are strong supporters of the NRCS Watershed and Flood Prevention Operations Program, often referred to as the "PL-566" Program. The WACC supports modernizing the Watershed and Flood Prevention Operations Program to prioritize multi-benefit projects that reduce flood and drought risk to producers and rural communities through a combination of infrastructure investments with improvements and protections to natural features that help provide the risk reduction. The Alliance supports expanding and modernizing the PL-566 Program to prioritize multi-benefit projects that reduce flood and drought risk to producers and rural communities. This can be done through a combination of infrastructure investments with improvements and protections to natural features that help provide the risk reduction.

c. Overarching Capacity Concerns

Several Alliance members over the past two decades have noted diminished efficiencies associated with NRCS delivery of conservation programs to on-the-ground applications. They have observed that the "evolutionary process" which began to occur at that time has weakened NRCS' ability to provide technical assistance. We would like to see less paperwork and more applied conservation. One means of improving local input would be to dedicate more dollars to educating farmers on available programs and opportunities. The once strong role of watershed teams needs to be revived.

There are also opportunities to leverage personnel at the local level, where local professionals can take on some of the technical duties once provided by NRCS staff. Many producers in the West use irrigation water delivery systems that are shared among multiple producers, such as irrigation districts, canal companies, or mutual ditch companies. Thus, flexibility is needed to work directly with these multi-producer, water-delivery entities to best deliver the Farm Bill's conservation title benefits to western producers. Greater focus on the part of NRCS to work with these agencies both in terms of education and program implementation is needed.

d. Farm Bill Engagement with the WACC

The Alliance co-founded the WACC over a decade ago, in an effort to support the common interests of agriculture, conservation, and other interests tied to resources on behalf of a viable and sustainable rural West. Water is the core resource concern that the WACC wants the government to address more effectively. The WACC strives for USDA prioritization of project proposals that deliver cross-sector benefits to farming, ranching, and conservation. A key part of WACC collaboration has focused on Farm Bill conservation programs, where the interests of coalition agriculture and conservation groups are very closely linked.

The Conservation Title programs that the Alliance via its involvement with WACC are focused on for 2023 Farm Bill reauthorization include EQIP, the Conservation Innovation Grant Program (CIG), and RCPP. The Alliance supports reducing the high administrative burdens on both NRCS staff and partners alike that leads to project delays and unnecessary expenditures on complex contract administration. The WACC is also striving to find ways to simplify program delivery without harming environmental interests or program integrity.

## JUDICIAL DEVELOPMENTS

2. Interior Department v Navajo Nation

The Family Farm Alliance board of directors last month moved to join an amicus ("friend of the court") brief with other Western water groups in support of plaintiffs as the Supreme Court of the United States (SCOTUS) considers *Interior Department v. Navajo Nation*. This case could decide whether the federal government has a duty to protect the Navajo Nation's access to the dwindling flows of the Colorado River. The federal government argues in the case that it is not legally obligated to assess the Navajo Nation's needs because no treaty, agreement or law explicitly addresses the tribe's claim to Colorado River water. The 9<sup>th</sup> U.S. Circuit Court of Appeals sided with the Navajo Nation and said the Interior Department had a "duty to protect and preserve the Nation's right to water."

The Biden Administration and backers of the Western water user amicus brief argued that the lower court ruling would complicate ongoing efforts among seven Western states to reduce their use of water from the drought-plagued Colorado River that serves the needs of 40 million people and millions of acres of important food-producing farms and ranches. We believe that end-run is



improper for two reasons. First, because it infringes upon this Court's retained and exclusive jurisdiction over the allocation of water from the mainstream of the Colorado River in the Lower Basin. It also seeks to impose judicially enforceable fiduciary duties on the United States without the kind of express positive-law grounding that the Supreme Court has repeatedly required before recognizing a judicially enforceable trust obligation.

Here's the full list of cases scheduled for oral argument in the March 2023 argument session: [Arizona v. Navajo Nation](#) & [Department of Interior v. Navajo Nation](#) (consolidated for one hour of oral argument on March 20).

## ALLIANCE INITIATIVES

### 3. 2023 Annual Meeting and Conference

This year's Family Farm Alliance annual meeting and conference will take place February 23-24, 2023, at the Silver Legacy Resort and Casino in Reno, Nevada. The 2023 annual conference theme is, "*A Wake Up` Call for America - Why Farms, Water and Food Matter*". A typical Family Farm Alliance annual conference features diverse, high-profile speakers and panel discussions that focus on the innovative ways and new partnerships that Western farmers and ranchers are developing to protect rural communities. Rep. Cliff Bentz (R-OREGON), the new chair of the House Water, Oceans & Wildlife Subcommittee, USDA Under Secretary Robert Bonnie, Interior Assistant Secretary Tanya Trujillo and Reclamation Commissioner Camille Touton have all confirmed their attendance at our conference.

The 2023 conference will feature the other following addresses and panel discussions:

- **Reclamation Roundtable** — featuring Commissioner Touton and all 5 regional directors;
- **"Kiss the Ground" with Forestry and Ag Solutions;**
- **SCOTUS and Western Water**
- **A Look at D.C. from the Hill;**
- **Generation "NEXT": Re-framing Western Agriculture;**
- **Solving Nutrients Challenges with Bushels of Nature: The Nutrient Work Group**
- **The P.L.- 566 Small Watershed Program – A Report from the Field;**
- **A Conversation with Biden Administration Water Leaders on Opportunities to Best Implement the Watershed and Flood Prevention Operations Program; and**
- **Colorado River Agricultural Water Management and Policy Challenges.**

Following the end of the conference general session at noon on February 24, a "Farm (Bill) to Fork" luncheon will take place off-site at Mari Chuy's Restaurant in mid-town Reno. Leaders of the Western Agriculture and Conservation Coalition will guide an informal discussion on the 2023 Farm Bill. Internal meetings of the Alliance board of directors and Advisory Committee will take place earlier in the week in Reno. Please visit [www.familyfarmalliance.org](http://www.familyfarmalliance.org) for

conference registration information, hotel booking information, sponsorship opportunities, and the latest schedule of events.

## ADMINISTRATIVE & MISCELLANEOUS

- Mike Wade (California Farm Water Coalition) wrote this [guest commentary](#) ("In defense of alfalfa") for the California Farm Bureau "Ag Alert", discussing the "Alfalfa 101" paper that our two organizations put together late last year.
- The audience at the Mid-Pacific Water Users Conference in late January was the largest since I've been on the conference planning committee (24 years!). Amongst the crowd were plenty of Alliance members and supporters. I had the honor of moderating two outstanding panels: 1) With of Central Valley Project Authority and district managers, including Federico Barajas and Alliance Advisory Committee Members Jason Phillips and Jeff Sutton; and 2) With three lobbyists, including former Congressman Dennis Cardoza (D-CA), Bill Ball, and our own Lane Dickson. Mike Wade and I did a tag-team "TedTalks" luncheon presentation on our latest favorite topic: food security.
- I drove back from Reno and provided an Alliance update (virtually) to the Tri States meeting, which included members of the Idaho Water Users Association, Oregon Water Resources Congress (OWRC) and Washington State Water Resources Association, which was hosted by our long-time Advisory Committee member April Snell, of OWRC.
- I'm traveling to Orlando later this week where I'll be on a panel with Reclamation Deputy Commissioner David Palumbo and Andre Monette (BBK Law) to talk about the Western Drought at the National Council of Farmer Cooperatives annual meeting.

*This is a quick summary of just a few of the issues the Alliance has been engaged in. Please do not hesitate to contact me at [dan@familyfarmalliance.org](mailto:dan@familyfarmalliance.org) if you would like further information about what the Alliance is doing to protect water for Western irrigated agriculture.*



## MID rehires attorney years after settling discrimination suit



DEKE FARROW JFARROW@MODBEE.COM

MID general counsel Ronda Lucas. Photographed Feb. 14, 2019, at the Modesto Irrigation District building in downtown Modesto.

**BY JOHN HOLLAND**  
*JHOLLAND@MODBEE.COM*

The Modesto Irrigation District board voted 4-1 on Tuesday to bring back an attorney who had sued the agency over gender issues.

Ronda Lucas will assist General Counsel Wes Miliband under a contract yet to be negotiated. Director Janice Keating dissented after noting that the cost and other details were not available before the vote.

Miliband said Lucas would concentrate in part on the state's push to boost reservoir releases to aid Tuolumne River fish. She also will handle issues related to how the board interacts with the staff.

Lucas headed MID's legal team from January 2016 until her termination in November 2018. In a 2019 lawsuit, she alleged sexual harassment and discrimination.

Lucas settled the case the next year and received a \$320,000 payment from the district, which did not admit liability.

Tuesday's vote was the first involving legal staffing since the November election brought three new board members. Keating, John Boer and Robert Frobose joined Larry Byrd and Nick Blom. Stu Gilman lost his re-election bid. John Mensinger and Paul Campbell did not seek new terms.

Frobose said Lucas has the skills to protect MID's water supplies and should not have been fired by the previous board.

290



"This is what was on my mind, the way Ronda Lucas was treated," he said.

The contract drew criticism from Ripon-based attorney Stacy Henderson, whose clients include farmers in MID. She said the public needs to know the cost of the contract and whether Lucas might cause tension with the current staff.

"Explain that to your ratepayers, who had to fund her settlement and lawsuit," Henderson said.

The Tuolumne flow issue has been going on for several years and also involves diversions by the Turlock Irrigation District and San Francisco. They reached a tentative compromise last year with the State Water Resources Control Board but still have to nail down the details.

"We've got to put our best offense in front of us," Boer said of his vote for Lucas, "or we're going to be playing defense the whole time."

*John Holland: 209-578-2385*



XIII.

# How California's Water Rights System Gouges You and Me

February 06, 2023 Kate Poole

I've written recently about the deep inequities built into California's water rights system, embedding California's racist past firmly into our present system of water distribution. The systematic exclusion of Native Americans, Asians, and other people of color from claiming and owning water rights during European settlement of California means that those communities continue to be deprived of critical water resources even today. But there is another lingering aspect of California's antiquated water rights system that affects nearly everyone who lives in the state, and that is the price of water. Just as our racist and exclusionary past shapes access to water, it also shapes the cost of water, again privileging the few European immigrants who laid claim to water in the late nineteenth and early twentieth century to the detriment of nearly everyone else.

Here is a snapshot of the wildly varying price for water across different constituencies in 2022:

Glenn-Colusa Irrigation District	Central California Irrigation District	Metropolita n Water District of Southern California	Westland Water District	Bottled water
--	---	---	----------------------------	------------------

				<b>\$420,411/a</b>
				<b>acre-foot (at</b>
				<b>~</b>
Base rate in	Rate for first	Tier 1 full	Wholesale rate for	
2022: <b>\$21.79/</b>	2.5 acre-	service	untreated water for	<b>\$1.29/gallo</b>
<b>acre-foot</b>	feet/acre in	untreated	low-income	<b>n x 325,900</b>
	2022: <b>\$20/a</b>	rate in	communities: <b>\$432.3</b>	<b>gallons in</b>
	<b>acre-foot</b>	2022: <b>\$799/a</b>	<b>7/acre-foot</b>	<b>an acre-</b>
		<b>acre-foot</b>		<b>foot)</b>

"Senior" water rights holders – those whose rights flow from the European immigrants who settled California in the late 1800s/early 1900s – paid around \$20/acre-foot for water in the severe drought year of 2022. That includes the Glenn-Colusa Irrigation District and Central California Irrigation District, both of which claim "pre-1914" water rights. Those two districts are typical of a larger set of diverters of which they are a part: Glenn-Colusa is part of a group of over 100 primarily irrigation districts that form the Sacramento River Settlement Contractors, and Central California Irrigation District is part of a group of irrigators called the Exchange Contractors. Together, the Sacramento River Settlement Contractors and Exchange Contractors lay claim to almost three million acre-feet of water annually – about six times the amount of water that the City of Los Angeles uses in a year. And they get their water on the cheap as a function of the claimed "seniority" of their water rights.

Compare that to the cost of untreated water charged by the Metropolitan Water District of Southern California (MWD) to its urban water district customers, including the City of Los Angeles, which was \$799/acre-foot in 2022, or **nearly 40 times the cost** paid by senior water rights holders. The cost of treated water is even higher, but one would expect that cost jump to ensure the water meets drinking water standards. Why the

244



huge cost differential? MWD sells water imported from the Sacramento and San Joaquin Rivers, the same rivers from which the Glenn-Colusa and Central California Irrigation Districts withdraw their supply. There are transportation costs to move that water through miles of canals to southern California, but those costs hardly justify a 40-fold increase in price. Indeed, the Westlands Water District charged its urban water users over \$430/acre-foot for untreated water in 2022, or **over 20 times the cost** paid by senior water rights holders, and it is adjacent to the Central California Irrigation District. The cost of moving water does not explain this vast differential.

Instead, almost every residential water customer in the State of California pays a considerable fee for using water while senior water rights holders essentially get their water for free, paying only minimal diversion charges. The cost differential is even more stark for those communities that rely on groundwater wells for drinking and bathing, but where those wells have dried up largely due to excessive overpumping on nearby agricultural lands. In the last year alone, over 5,100 households in the state have reported their wells going dry. Many of those households must rely on bottled water for drinking without any supply from their taps. At an average price of \$1.29/gallon, an acre-foot of bottled water costs a whopping \$420,411/acre-foot (there are approximately 325,900 gallons in an acre-foot). That's **over 20,000 times the cost of water** paid by senior water rights holders.


Granted, these are not all apples-to-apples comparisons. Bottled water is not the same quality as that pulled directly from a river. But the fact remains that today's "senior" water rights holders, who gained their preferential status purely as the result of profiting from California's violent and racist history, pay far less to take water from our rivers to irrigate their farms than almost every California resident pays for water to drink.

It's time for California's water managers to reform this antiquated system and prioritize water for human health and safety and for the shared environment over water for farms.



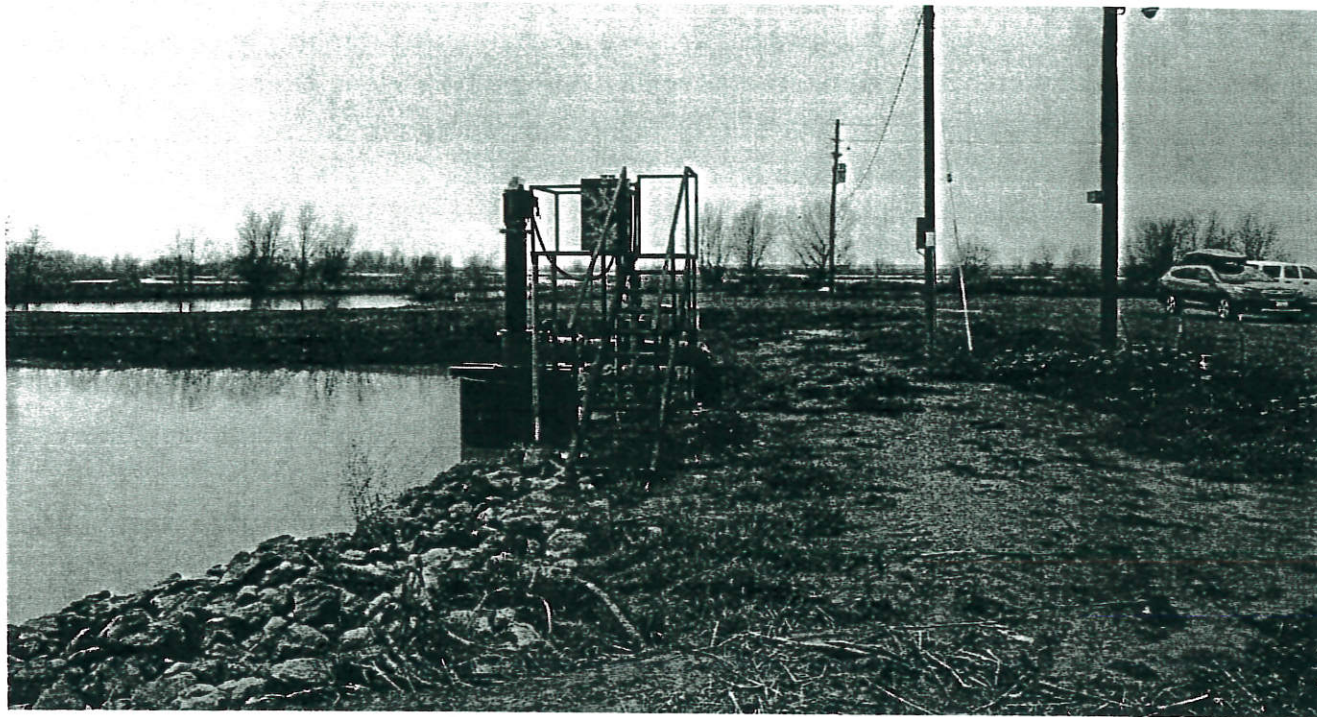
XIII.

## THIS JUST IN ...Governor Newsom Signs Order to Build Water Resilience Amid Climate-Driven Extreme Weather

 [mavensnotebook.com/2023/02/13/this-just-in-governor-newsom-signs-order-to-build-water-resilience-amid-climate-driven-extreme-weather/](https://mavensnotebook.com/2023/02/13/this-just-in-governor-newsom-signs-order-to-build-water-resilience-amid-climate-driven-extreme-weather/)

Maven Breaking News February 13, 2023 0 223

February 13, 2023



*From the Office of the Governor:*

Governor Gavin Newsom today signed an executive order to protect the state's water supplies from the impacts of climate-driven extremes in weather. After years of prolonged drought, recent storms resulted in the wettest three-week period on record in California. The storms have been followed by an unseasonably dry February, however, and the state could see a return to warm and dry conditions during the remaining weeks of the wet season – just as heavy rains in fall 2021 gave way to the driest January-February-March period in over 100 years.



247

While recent storms have helped replenish the state's reservoirs and boosted snowpack, drought conditions continue to have significant impacts on communities with vulnerable water supplies, agriculture, and the environment. The latest science indicates that hotter and drier weather conditions could reduce California's water supply by up to 10% by the year 2040.

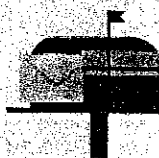
The frequency of hydrologic extremes that is being experienced in California demonstrates the need to continually adapt to promote resiliency in a changing climate. To protect water supply and the environment given this new reality, and until it is clear what the remainder of the wet season will hold, the executive order includes provisions to protect water reserves, and replace and replenish the greater share of rain and snowfall that will be absorbed by thirstier soils, vegetation and the atmosphere.

The order helps expand the state's capacity to capture storm runoff in wet years by facilitating groundwater recharge projects. It also continues conservation measures and allows the State Water Board to reevaluate requirements for reservoir releases and diversion limitations to maximize water supplies north and south of the Delta while protecting the environment. Additionally, the order directs state agencies to review and provide recommendations on the state's drought response actions by the end of April, including the possibility of terminating specific emergency provisions that are no longer needed, once there is greater clarity about the hydrologic conditions this year.

The text of the executive order can be found [here](#).

Leveraging the more than \$8.6 billion committed by Governor Newsom and the Legislature in the last two budget cycles to build water resilience, the state is taking aggressive action to prepare for the impacts of climate-driven extremes in weather on the state's water supplies. In the 2023-24 state budget, Governor Newsom is proposing an additional \$202 million for flood protection and \$125 million for drought related actions.

**SIGN UP**  
for daily email service



**The latest water news by around 9am**  
**Breaking news alerts too!**

245



EXECUTIVE DEPARTMENT  
STATE OF CALIFORNIA

EXECUTIVE ORDER N-3-23

**WHEREAS** on April 21, 2021, May 10, 2021, July 8, 2021, and October 19, 2021, I proclaimed States of Emergency due to drought conditions that continue today and exist across California; and

**WHEREAS** climate change continues to intensify the impacts of droughts on our communities, environment, and economy, and these impacts continue to affect groundwater basins, local water supplies, and ecosystems, resulting in continuing drought in the State; and

**WHEREAS** the ongoing drought continues to have significant, immediate impacts on communities with vulnerable water supplies, farms that rely on irrigation to grow food and fiber, and fish and wildlife that rely on stream flows and cool water; and

**WHEREAS** early, substantial rains in October and December 2021 gave way to the driest January-February-March period in over 100 years in California, leading the October 2021 to September 2022 water year to end with statewide precipitation at 76 percent of average, with statewide reservoir storage at 69 percent of average, and with Lake Oroville—the State Water Project's largest reservoir—at 64 percent of average; and

**WHEREAS** in January 2023, the State experienced one of the wettest three-week periods on record, yielding a snowpack that was at 205 percent of average on February 1, 2023, yet to date February has been drier than average; and

**WHEREAS** the current snowpack has not reduced stresses upon the State's water resources, including low storage levels, depleted aquifers, and diminished local water supplies; and

**WHEREAS** the State can expect continued swings between extreme wet and extreme dry periods that can present risks of severe flooding and extreme drought in the same year; and

**WHEREAS** California must adapt to a hotter, drier future in which a greater share of rain and snowfall during the wetter months will be absorbed by dry soils, consumed by plants, and evaporated into the air, leaving less water for communities, species, and agriculture; and

**WHEREAS** the frequency of hydrologic extremes experienced in the State is indicative of an overarching need to continually reexamine policies to promote resiliency in a changing climate; and

**WHEREAS** Californians continue to make progress conserving water, with urban water users conserving 17.1 percent statewide in December 2022 compared to December 2020 and agricultural producers continuing to invest in more efficient irrigation; and

**WHEREAS** despite this progress, the uncertainty of precipitation during the remainder of the winter and spring, and the potential of dry conditions next

winter and of drought conditions extending to a fifth year, make it necessary for the State to continue water-conservation measures and drought-resilience actions to extend available supplies, protect water reserves, and maintain critical flows for fish and wildlife; and

**WHEREAS** as directed in "California's Water Supply Strategy: Adapting to a Hotter, Drier Future," the State plans to stretch water supplies by storing, recycling, de-salting, and conserving the water it will need to keep up with the increasing pace of climate change; and

**WHEREAS** multiple regions of the State, such as the Klamath Basin and the Colorado River system, face severe water shortage conditions, and groundwater basins in the Central Valley continue to be depleted from years of drought and overdraft; and

**WHEREAS** groundwater use accounts for 41 percent of the State's total water supply on an average annual basis but as much as 58 percent in a critically dry year, and approximately 85 percent of public water systems rely on groundwater as their primary supply; and

**WHEREAS** capturing and storing storm and snowpack runoff underground to recharge aquifers is an important strategy to help regions stabilize water supplies in the face of hydrologic extremes; and

**WHEREAS** state agencies have created streamlined permitting pathways to enable groundwater recharge that augments natural aquifer recharge, while protecting the environment and other water users, but more opportunities exist to facilitate groundwater recharge; and

**WHEREAS** coordination between local entities that approve permits for new groundwater wells and local groundwater sustainability agencies is important to achieving sustainable levels of groundwater in critically overdrafted basins; and

**WHEREAS** to protect public health and safety, it is critical the State take certain immediate actions without undue delay to prepare for and mitigate the effects of the drought conditions, and under Government Code section 8571, I find that strict compliance with various statutes and regulations specified in this Order would prevent, hinder, or delay the mitigation of the effects of the drought conditions.

**NOW, THEREFORE, I, GAVIN NEWSOM**, Governor of the State of California, in accordance with the authority vested in me by the State Constitution and statutes, including the California Emergency Services Act, and in particular, Government Code sections 8567, 8571, and 8627, do hereby issue the following Order to become effective immediately:

**IT IS HEREBY ORDERED THAT:**

1. The orders and provisions contained in my State of Emergency Proclamations dated April 21, 2021, May 10, 2021, July 8, 2021, and October 19, 2021, and Executive Orders N-10-21 (July 8, 2021) and N-7-22 (March 28, 2022), remain in full force and effect, except as modified by those proclamations and orders and herein. State agencies shall



continue to implement all directions from those proclamations and orders and accelerate implementation where feasible.

2. To maximize the extent to which winter precipitation recharges underground aquifers, the Department of Water Resources, the State Water Resources Control Board (Water Board), and the Department of Fish and Wildlife shall continue to collaborate on expediting permitting of recharge projects and shall work with local water districts to facilitate recharge projects.
3. Paragraph 4 of my State of Emergency Proclamation dated May 10, 2021 and Paragraph 4 of my State of Emergency Proclamation dated July 8, 2021 are withdrawn, and each is replaced with the following text:

To ensure adequate water supplies for purposes of health, safety, the environment, or drought resilient water supplies, the Water Board shall consider modifying requirements for reservoir releases or diversion limitations in Central Valley Project or State Water Project facilities to: (i) conserve water upstream later in the year in order to protect cold water pools for salmon and steelhead, (ii) enhance instream conditions for fish and wildlife, (iii) improve water quality, (iv) protect carry-over storage, (v) ensure minimum health and safety water supplies, or (vi) provide opportunities to maintain or to expand water supplies north and south of the Delta. The Water Board shall require monitoring and evaluation of any such changes to inform future actions. For any actions taken pursuant to this paragraph and any approvals granted in furtherance of this paragraph, Water Code Section 13247 and Public Resources Code, Division 13 (commencing with Section 21000) and regulations adopted pursuant to that Division are suspended. Nothing in this Paragraph affects or limits the validity of actions already taken or ongoing under Paragraph 4 of my May 10, 2021 Proclamation or Paragraph 4 of my July 8, 2021 Proclamation.

4. Paragraph 9 of Executive Order N-7-22 is withdrawn and replaced with the following text:

To protect health, safety, and the environment during this drought emergency, a county, city, or other public agency shall not:

- a. Approve a permit for a new groundwater well or for alteration of an existing well in a basin subject to the Sustainable Groundwater Management Act and classified as medium- or high-priority without first obtaining written verification from a Groundwater Sustainability Agency managing the basin or area of the basin where the well is proposed to be located that groundwater extraction by the proposed well would not be inconsistent with any sustainable groundwater management program established in any applicable Groundwater Sustainability Plan adopted by that Groundwater Sustainability Agency and would not decrease the likelihood of achieving a sustainability goal for the basin covered by such a plan; or

- b. Issue a permit for a new groundwater well or for alteration of an existing well without first determining that extraction of groundwater from the proposed well is (1) not likely to interfere with the production and functioning of existing nearby wells, and (2) not likely to cause subsidence that would adversely impact or damage nearby infrastructure.

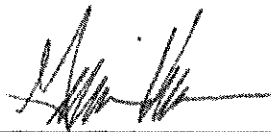
This Paragraph shall not apply to permits for wells (i) that will provide less than two acre-feet per year of groundwater for individual domestic users, (ii) that will exclusively provide groundwater to public water supply systems as defined in section 116275 of the Health and Safety Code, or (iii) that are replacing existing, currently permitted wells with new wells that will produce an equivalent quantity of water as the well being replaced when the existing well is being replaced because it has been acquired by eminent domain or acquired while under threat of condemnation.

5. No later than April 28, 2023, state agencies shall send me their recommendations for what further actions, if any, are necessary for on-going emergency drought response, and their views on whether any existing provisions in my proclamations and executive orders related to the drought emergency are no longer needed to prepare for and mitigate the effects of the drought conditions.

**IT IS FURTHER ORDERED** that as soon as hereafter possible, this Order be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this Order.

This Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

**IN WITNESS WHEREOF** I have  
hereunto set my hand and caused  
the Great Seal of the State of  
California to be affixed this 13th day  
of February 2023.



GAVIN NEWSOM  
Governor of California

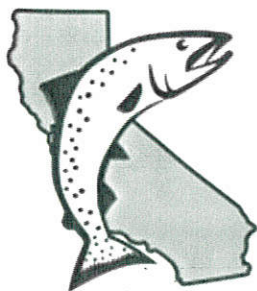
**ATTEST:**

SHIRLEY N. WEBER, PH.D.  
Secretary of State

252

XIII.

## Response to executive order by John McManus, Golden State Salmon Association



**GOLDEN STATE  
SALMON  
ASSOCIATION**

"Californians saw a very low number of salmon in last year's returns following years of water management clearly aimed at aiding a handful of wealthy factory farm operators at the expense of the rest of us. There's a good chance the tens of thousands of Californians who work in the salmon fishery and related businesses will be out of work this year if the decision is made to close the fishery. We've got 205 percent of the normal snowpack in the Sierras, most of which will flow into the state's reservoirs so why is Gavin Newsom telling his water managers to make things worse for every family in California that depends on salmon to make a living? Why is Newsom acting to divert more water to a handful of his powerful friends at the expense of the rest of us? Newsom claims he's using his emergency authority. What emergency is he responding to? The emergency is the disappearance of the salmon a statewide industry revolves around. We've asked repeatedly to share our concerns with the governor, why does he ignore our needs? ...

Why are families and communities on the coast being told they alone have to absorb more economic pain, especially when water projects like San Francisco's Hetchy Hetchy and others are almost overflowing right now? Everyone saw the heavy rains we got in January and there's lots more water trapped in snow that will add to those reservoirs in the months to come so why is Newsom encouraging his water managers to cut the spring river flows needed to get baby salmon from the Central Valley to the ocean? The past several years have been horrible for California's native salmon runs and this spring we were hoping for a reprieve when we might finally see the river flows needed to move baby salmon to the ocean. Now Newsom is stepping in to kill our salmon runs, as well as other wildlife that were hoping to catch a break.

Why does Gavin Newsom bend over backwards to give the corporate factory farms, many in the western San Joaquin desert, anything and everything they ask for while driving California's native wildlife extinct and coastal and inland communities into poverty?

The history of California is one of big wealthy landowners controlling politicians to seize the state's water. This executive order is Exhibit A that this dynamic still controls California water policy and politicians like Gavin Newsom.



In addition to those wondering how they'll pay the bills this year if salmon fishing is cut off, all Californians who care about responsible stewardship of our natural resources should let this governor hear loud and clear that he is not serving us.

XIII.

# Policy group warns of steep ag losses without coordinated action on water

- BY JOHN COX [jcox@bakersfield.com](mailto:jcox@bakersfield.com)

- Feb 11, 2023

Agriculture in the San Joaquin Valley may be able to blunt a sharp decline in the years ahead if policymakers and the industry can come together on a series of strategies for reducing demand for irrigation while also increasing water supply, according to a new assessment from a prominent policy organization.

The report this month from the Public Policy Institute of California examined the biggest challenge confronting the state's ag industry — a one-fifth decline in annual water supply expected by 2040 because of groundwater sustainability measures and climate change — then recommended softening the impact by loosening water-trading rules, incentivizing farmland reuse and investing in storage, including groundwater recharge.

If consensus cannot be found to address the coming water shortfall, the study predicted, 900,000 acres of farmland will be fallowed at a cost of 50,000 jobs and a 2.3 percent drop in the valley's economic output.

Neither the gist of the PPIC's findings nor its suggestions are entirely new, but the renewal of their urgency resonates with a local industry anxious for progress.

"We've talked enough. Now we need action," President Ian LeMay of the California Fresh Fruit Association said Friday. "The end result of inaction, which is what got us to

255

this place, sadly, will be ... massive fallowing of acreage, tens of thousands of jobs lost and, quite frankly, irreparable economic damage to the San Joaquin Valley."

There are potential drawbacks to the measures the PPIC proposed, and the policy brief went through them before suggesting ways to guard against unintended consequences.

Unregulated water trading risks harming water users and ecosystems, it said, and so there would need to be a transparent, well-run market to protect small communities' drinking water wells. New caps on groundwater pumping may be in order, the report says.

Dairy and beef producers could be hurt, too, the study said, as water flows away from feed crops like alfalfa toward specialty, perennial crops like grapes and pistachios. The PPIC concluded communities affected by that may require what it termed transitional support.

At best, PPIC estimated, half a million acres will come out of production by 2040 — 11 percent of the San Joaquin Valley's total as of 2018. That much farmland going idle will increase dust and decrease air quality, exacerbate weeds, invite pests and degrade soils. Or not, if opportunities open in the areas of solar development, water-limited agriculture and habitat restoration.

"This will require both careful planning and financial and regulatory incentives," said the report by Alvar Escriva-Bou, Ellen Hanak, Spencer Cole and Josué Medellín-Azuara, with research support from Annabelle Rosser. "Progress will be hindered if these lands become a liability to growers."

Ag represents 14 percent of the valley's economic output, 17 percent of its employment (340,000 people) and 19 percent of its total income, the report estimated.

By itself, making surface- and groundwater trading rules more flexible won't increase supply, but it could cut the economic costs of adjusting to less water by one-third, while

254



limiting employment losses to perhaps 44 percent and reducing the impact on gross economic output by as much as half, according to the study.

It said expanding the supply of irrigation water through investment in new storage would cut the total land that will have to be fallowed by between 25 percent and 45 percent.

The policy brief threw in a hopeful note: If farming efficiency gains continue at even half the rate they have increased during the past 40 years, then half the expected economic costs would be avoided by 2040.

Disagreement was the caveat.

"Achieving successful outcomes will require unprecedented coordination and cooperation among local and regional parties," the report said, "with strong partnership and support from state and federal agencies."

Local farmland appraiser and broker Michael G. "Mike" Ming expressed confidence water trading can be done in a fair way that maximizes production across the valley.

"I think that that's something that a lot of our water districts in the valley are looking at," he said. "I just think that everybody kind of is in their corner and I think there should be an equitable water-trading platform."

He added local farmers are heavily invested in increasing irrigation efficiency and look forward to increased state and federal flows to local water banks.

LeMay viewed the PPIC report as continuing a conversation about where California finds itself on water policy. He said investments need to be made on water infrastructure and that permitting needs to be expedited on the \$5.2 billion Sites Reservoir water storage project in Northern California.

Progress also needs to be made on water recycling in urban areas, LeMay said, as well as decisions on the future of water through the Sacramento-San Joaquin Delta. He said state leadership needs to treat the situation as the crisis it is

XIII.

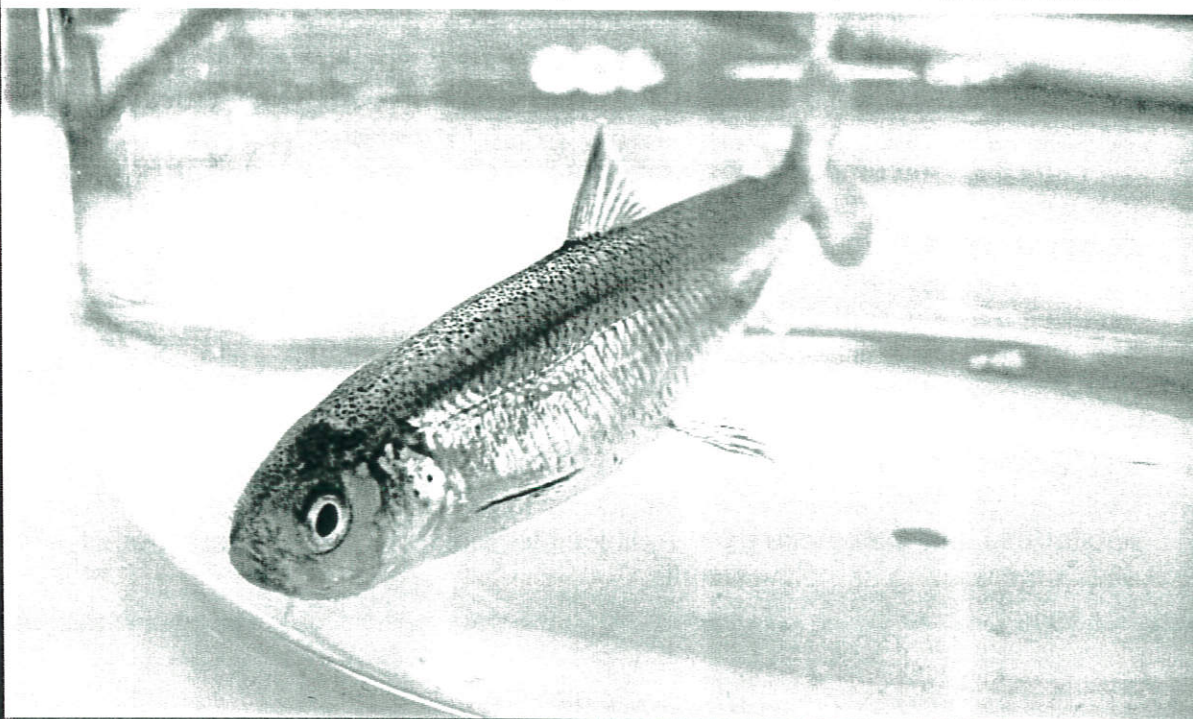
**Anthea Hansen**

**From:** FISHBIO <fishreport@fishbio.com>  
**Sent:** Monday, February 13, 2023 8:31 AM  
**To:** Anthea Hansen  
**Subject:** Fish Report: Salt and Smelt — Assessing the Effect of the Fall X2 Outflow Action on Endangered Delta Smelt



# Fish Report

Fisheries Research, Monitoring, and Conservation



## Salt & Smelt: Assessing the Effect of the Fall X2 Outflow Action on Endangered Delta Smelt

**February 13, 2023**

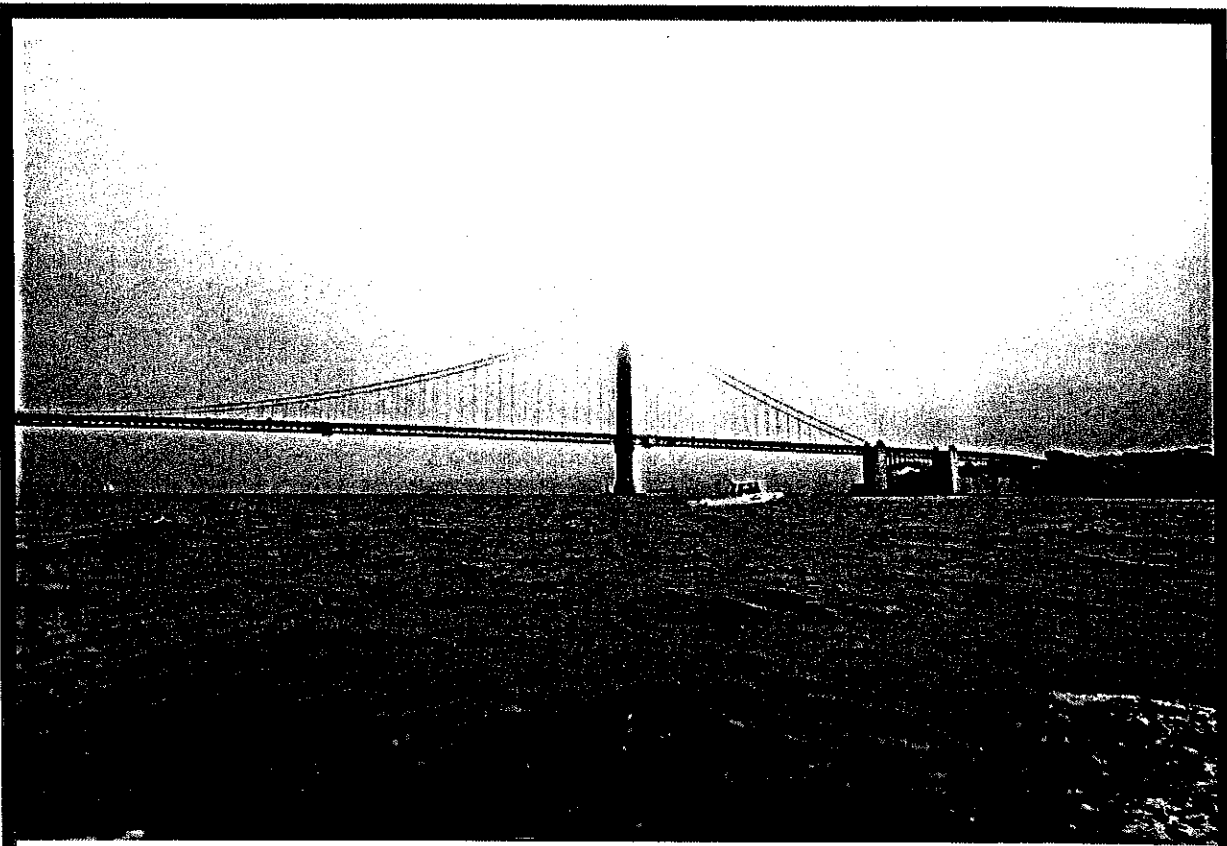
Recent research has revealed that the habitat needs of endangered delta smelt (*Hypomesus transpacificus*) may be more complex than what is accounted for in current management efforts. One ongoing effort intended to aid delta smelt recovery is the "Fall X2 Outflow Action," which is a strategic increase in outflow into the Sacramento-San Joaquin Delta to improve habitat for delta smelt during a key life history period when adult fish are maturing prior

259



to their spawning migration. This increase in outflow is thought to improve the quantity and quality of delta smelt habitat by maintaining flows to sustain a low-salinity zone, in this case, a region with an average salinity less than 2 parts per thousand (a location referred to as X2). The position of X2 depends on the previous water year. Following a wet year or normal year, X2 is located approximately 74 kilometers to 81 kilometers upstream of the Golden Gate Bridge. However, the findings of a recent study suggest that managing delta smelt habitat by adjusting the position of X2 may not be as effective as previously thought (Hendrix et al. 2022).

The study used 35 years of data from the California Department of Fish and Wildlife's Fall Midwater Trawl surveys to examine which factors may have an impact on delta smelt occupancy – or their presence in different habitats – during the fall. They found that delta smelt movement and behavior patterns were most closely associated with salinity and temperature. Although there is complex variation in salinity levels within the X2 region, the study revealed that the position of X2 was not a good predictor of delta smelt occupancy. In fact, they found that patterns of occupancy were similar in both wet and dry years, suggesting that utilizing the position of X2 as a management tool may be an oversimplification of the habitat requirements of the species. Additional factors that were found to influence delta smelt occupancy patterns, albeit to a lesser degree, were the presence of threadfin shad (*Dorosoma petenense*, a non-native competitor) as well as an index of predation intensity developed by fisheries experts. Further, the study utilized unique methods to examine factors that affected the ability of the trawling surveys to detect delta smelt. Detection probability is important to consider when using physical capture sampling gears, because it results in less biased estimates of occupancy. They were able to determine that decreased water clarity in the Sacramento-San Joaquin Delta, a hypothesized contributor to the species' decline, likely does not affect habitat use, but may make it more difficult for biologists to effectively detect delta smelt during sampling events.



*FISHBIO vessel in front of the Golden Gate Bridge in San Francisco, California.*

This is not the only recent study to examine the role of X2 as a management tool for delta smelt. Given the precipitous decline in the population over the last few decades despite intensive management efforts, it appears that additional data collection efforts and management tools may be warranted. Due to their rarity, delta smelt are notoriously difficult to capture in typical trawl samples. This study suggests that it may be beneficial to further investigate changes to existing methods for capturing delta smelt that provide a more accurate representation of population status and habitat occupancy. The authors of this study also suggest continuous monitoring of food web dynamics in the Bay-Delta to assess how predation, competition, and the presence of invasive species impact delta smelt. More importantly, future management strategies should focus on increasing habitat quality in regions where delta smelt occupancy probabilities have been consistently high in spring and autumn, including Cache Slough, the lower Sacramento River, and Suisun Bay. Shifting focus from X2-centered management and exploring other factors influencing habitat availability and quality may ultimately be the best path forward for delta smelt recovery and research efforts.

*Header Image: Delta smelt individual in a glass jar.  
Image by Laura Mahoney, USFWS.*

Blank