Most fishermen are aware that current fisheries are a small remnant of their historical abundances and are in a downward spiral. Scientists are predicting that over 80% of native California fish species, including three-fourths of trout and salmon, are threatened with extinction over the century. Many of these species may disappear in less than 50 years.

Fish don't lie. Their very existence tells us that fish thrive when suitable habitat and adequate quantities of good quality water are available. Absent those conditions, they'll disappear. The battles to ensure that fisheries receive the necessities of life take place in dreary buildings and windowless rooms far from our streams. Unfortunately, far too few fishermen are in those rooms taking part in the critical decisions that will determine whether or not our fisheries survive.

A pivotal battle over the fate of our fisheries is occurring in the State Water Board's evidentiary hearing regarding the California WaterFix proposal to construct vast tunnels to divert the Sacramento River under the Delta for export to southern California. This hearing will largely determine the future of fisheries from the Bay to the crest of the Sierras.

Now in its third year, the proceeding already encompasses more than 200 witnesses and thousands of pages of sworn testimony, cross-examination and rebuttal spanning almost 100 hearing days and several million pages of evidentiary record, not to mention myriad procedural motions, responses and rulings. Following several addition months of hearings, a final decision by the State Board is expected late this year or early next year. The involvement of fishery groups is essential since the Brown and Trump administrations have prohibited state and federal fishery agencies from testifying or providing evidence.

CSPA and the Pacific Coast Federation of Fisherman's Associations, who represent commercial fishermen, are the only fishery organizations participating as designated parties. CSPA's attorneys and staff have attended every day of the hearing. We've presented extensive expert testimony and relentlessly cross-examined opposing witnesses. If necessary, we're prepared to litigate any decision that doesn't protect fisheries. Below is a brief article by Cindy Charles highlighting our efforts during Part 2 of the proceeding.

Of course, our involvement has been extremely expensive and exhaustingly time consuming. We urge you to generously contribute to our efforts in this pivotal battle and ask your friends to do the same. As activists, we don't squander limited resources on fluff – it all goes for technical and legal support.

We also invite you to frequently check out our Fisheries Blog on the current state of fisheries in the Central Valley. It really is the best source on the current state of fisheries. Cheers!
Over March 27th & 28th, and again on April 25, CSPA panels of expert witnesses gave critically important testimony for Part 2 of the WaterFix Hearings held in Sacramento. The California State Water Resources Control Board has been holding a multi-part hearing to gather evidence to determine whether it should approve a joint petition filed by the California Department of Water Resources and the U.S. Bureau of Reclamation to add three new points of water diversion (intakes to the proposed Delta tunnels) for the State Water Project and the Federal Central Valley Project.

Part 2 of the hearing focuses on the impacts of the petition on fish and wildlife and recreational uses, and conditions that should be placed on any approval of the petition. The outcome will largely determine whether viable salmon, steelhead, sturgeon, striped bass and other species will continue to exist in California’s Central Valley or not. These fisheries have suffered a massive decline in population numbers in the time these water projects have operated.

The testimony of the CSPA panels was extremely important in the consideration of effects of the new diversions since fish resource agencies did not participate in the hearings. The California Department of Fish and Wildlife, U.S. Fish & Wildlife Service and National Marine Fisheries Services were instructed to not present testimony in the hearing; this created an unfair bias in the presentation of the potential effects of the twin tunnels project. This is the first time in history the fisheries agencies are all absent from a major water rights hearing.

CSPA, representing recreational fishermen, and the Pacific Coast Federation of Fishermen's Association, representing commercial fishermen, were the only two fishing organizations that presented technical biological testimony at the hearing.

Preparation for this hearing was a huge undertaking. CSPA submitted 11 sworn testimonies and 174 supporting exhibits to the State Water Board website in preparation for the Part 2 Hearing. Those documents are available here: https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/cspa_et_al.html

A summary of the highlights from the CSPA panel testimony are described below.

CSPA Executive Director Bill Jennings described what happened to fish and water quality over the last 50 years and the State Water Board’s failure to establish enforceable measures to protect them. He discussed the collapse of Central Valley fisheries and the history of disastrous decisions by the State Water Board and the fish agencies during this collapse. Bill testified that the Board must define and implement a methodology to balance public trust resources with other uses of water, using the best available science it already has collected to set the flows necessary to restore Delta fisheries. He spoke of the historical failures of adaptive management in the estuary, a centerpiece of WaterFix, and pointed out that the project has failed to develop a final, defensible and funded plan, with input from all stakeholders, that has a reasonable likelihood of success.

CSPA's Water Rights Advocate Chris Shutes gave testimony as to the importance of enforceability of any Board decision which allows changes to the water diversion for the twin tunnels. He provided exhibits that quoted extensively from the fisheries agencies in the State Water Board's 2010 Delta flow criteria proceeding. He argued that as part of setting appropriate Delta flow criteria, the State Water Board must require carryover storage requirements for State Water Project and Central Valley Project storage reservoirs. Otherwise, the operators of these projects will make up needed flow for the Delta by lowering the reservoirs, and put fish at risk. He concluded by saying that the Board must not delegate protection of fish and wildlife to different agencies or to different authorities, or defer protection of fish and wildlife to future processes.

CSPA's Advisory Biologist Tom Cannon, who has worked on the Bay-Delta ecosystems since 1977, gave extensive testimony on how the state and federal water projects negatively affect fish today and how the fish populations would further suffer with the installation of the twin tunnels. Tom argued that the proposed tunnels diversion intake screens and proposed operational constraints will not protect passing fish from entrainment, impingement, or predation. The intake and experimental screens are too big, and the flows will be too large, plus such a design of intakes and screens won't work on tidal channels. He discussed how the juvenile fish will be more vulnerable to predatory fish. Tom presented reasons why the proposed diversions would allow more of the total freshwater inflow to be exported, leading to less total Delta outflow to the Bay. Proposed bypass flows are inadequate, with warmer water temperatures in late spring and summer, and reduced downstream fish transport and migration. Tom described the conditions that Delta and Central Valley fish need to recover. His testimony, accompanied by over 60 science-based exhibits, strongly supports the position that problems related to fish population declines over past half century will not be fixed, but rather will only worsen with WaterFix.

Marc Del Piero, former "attorney member" of the State Water Board, testified there is not currently enough water left in the Delta to sustain the public trust resources of the Delta, and that the operators of the state and federal water projects
are relying on "paper water rights." He testified that WaterFix will harm the Delta eco-system's constitutionally protected public trust resources and displace other beneficial land uses of water by senior water rights holders; this cannot be mitigated because all of the surplus water in the Delta is gone. Marc also discussed the inadequacy, lack of specificity and lack of enforceability by the State Board of WaterFix's proposed "adaptive management" concepts. Marc concluded his testimony by arguing that the petition for the change in water rights diversion is incomplete and inadequate, and to grant it would violate California law, damage constitutionally protected public trust resources, and be contrary to the public interest.

Part 2 hearings have concluded and the next step in the process is the rebuttal phase.

Why Haven't Fish Recovered Since the End of the Drought?

Given the past three non-drought years, including a record wet 2017 and this year's below normal to normal classification, why are Central Valley and Delta fish populations still crashing?? Why aren't the fish getting the water and colder temperatures they need to recover from the last period of drought (2013-2015) and other environmental problems??

During the spring months, tens of millions of wild and hatchery juvenile salmon and steelhead leave Central Valley rivers for the Delta, Bay, and ocean. Millions of young smelt are trying to reach their low salinity nurseries in the Bay. Adult spring-run salmon and green and white sturgeon will be seeking their upriver spawning grounds. All of these populations are in real trouble and need help after years of stress.

CSPA's biologist Tom Cannon has recently written several articles posted on the California Fisheries Blog that explain some of the ongoing problems. An overview from excerpts of Tom's recent articles is below.

With the irrigation season starting, storm and snowmelt flows declining, and the arrival of warm, dry weather, both wild and hatchery salmon smolts within the Sacramento River watershed needed a boost to help them get over the treacherous miles to the Bay and ocean. With flows too low and water temperatures increasing as of May 2018, the young salmon needed pulses of cold water from Shasta Reservoir and from Oroville Reservoir. These pulses did not happen, even though there was plenty of water in Shasta Reservoir, which is projected to fill (4.5 million acre-feet) this spring. Instead, fish from the Coleman and Oroville hatcheries were released into low and relatively warm water, providing little chance that out-migrating salmon would survive a journey to the ocean. The operation of the Central Valley Project's Shasta-Trinity Division is governed in part by the State Water Board's Water Right Order (WRO) 90-5. Issued in 1990, this Order prescribes water temperature protection for Sacramento River salmon, steelhead, and sturgeon. The problem in recent years is that "requirements" have not been met by the Bureau of Reclamation.

In the past three years, Reclamation has used its poor performance during the 2013-2015 drought and global warming as excuses to prioritize preserving water storage in Lake Shasta over meeting water temperature requirements for the Sacramento River under WRO 90-5. But while Reclamation has argued it must preserve Shasta Reservoir's cold-water pool, Reclamation has given the Sacramento Valley contractors a 100% water allocation. South-of-Delta San Joaquin CVP contractors have been allocated only 40%. Reclamation increased releases in April to 5300 cfs to meet water contractor demands. The problem remains that this water is not reaching the lower Sacramento River, where water temperatures hit 70°F in late April and early May, exceeding the WRO 90-5 limits of 68°F. Reclamation is fully capable of meeting WRO 90-5 requirements, as it did historically. It is up to the State Board to enforce the Central Valley Project permit requirements. Given the state of the salmon populations, there should be no compromise on the permit requirements.

Soon after spring-run salmon smolts were released from the new San Joaquin River Spring-Run Recovery Hatchery at the beginning of March, they began appearing in south Delta export salvage facilities. The number salvaged is unusually large, about one percent of the 87,000 released into the San Joaquin River. The salvage rates of recovery for the other winter 2018 Central Valley hatchery releases are much lower. The high rate of salvage of the March 1 San Joaquin River spring-run release reflects the vulnerability of young salmon that are drawn into the south Delta, where they are at risk of being drawn to the State Water Project (SWP) and Central Valley Project (CVP) export facilities. High exports were allowed this spring because of the increase in San Joaquin flows in late March. Tying export limits to San Joaquin flows and OMR flows is obviously not protecting San Joaquin River salmon emigrants.

Tom also recently reported on the dire status of the Delta smelt, a key indicator species for the health of the Delta. Despite three straight non-drought winters (2016-2018), the Delta smelt spawning run showed no sign of recovery in the February 2018 survey, which brought a record low catch of only 4 adults (compared to 125-287 from 2011-2013). There are simply not enough spawning smelt left to increase recruitment for the next year. The next check is the spring 20-mm Smelt Survey index to determine if this year's spawning run production of juvenile smelt continues the pattern of four years of near record lows.

Some of the March-April water added to Central Valley storage in 2018 should be set aside for the fish. Fish need higher
river flows and Delta outflow through summer than would normally be allocated in a sub-normal water year like this. Lower Sacramento River flows (gaged at Wilkins Slough) should be kept near 8000 cfs, not the projected 5000-6000 cfs. San Joaquin River flows should be kept near 1000 cfs. The Delta outflow minimum should be 8000 cfs, not 5000 cfs. The "extra" water would amount to about a quarter of Mother Nature's gift to the reservoir supply added this spring to help meet already prescribed flow and water temperature standards for the Central Valley rivers and Delta.

Below are links to the Fisheries Blog sources for this article:

- [Sacramento River Salmon & Water Right Order 90-5](#)
- [Delta Smelt Spawning Run - Record Low Feb. 2018 Index](#)
- [More on Coleman Hatchery Salmon Straying](#)
- [Miracle March/April for Water Supply & Fish](#)

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**Update on Lower Tuolumne River Dam FERC Relicensing**

By Cindy Charles & Chris Shutes

Earlier this year, CSPA and nine other Conservation Groups* filed extensive comments and recommendations for flow requirements and non-flow measures for the lower Tuolumne River. The filing was an important milestone in the multi-year licensing process of the Don Pedro and La Grange dams owned by Turlock Irrigation District and Modesto Irrigation District. The comments made environmental recommendations and discussed legal requirements that the Federal Energy Regulatory Commission (FERC) must consider in evaluating license conditions for new hydropower licenses.

In the 124-page submittal, the Conservation Groups provided a detailed flow recommendation for the lower Tuolumne River. The recommendation modified the State Water Resources Control Board's plan to require the release of a percent of the unimpaired flow from February through June. CSPA used a hydrological model to develop recommendations on how FERC and the State Water Board could balance flow, irrigation and municipal water supplies, and reservoir storage. The recommendation included a proposal that the City of San Francisco fund groundwater recharge facilities for the irrigation districts in order to meet the City's flow obligations for the river. With these new facilities, the irrigation districts could maintain groundwater levels with less reliance on water-intensive flood irrigation. The Conservation Groups' filing also recommended non-flow measures to create floodplain habitat, fill in dredger holes, replenish spawning gravel, and place large wood in the lower Tuolumne River. Here is a link to the complete comment filing: [Don Pedro and La Grange Comments](#)

The Districts responded to the Conservation Groups comments within the 45 day deadline. In their response, the Districts argued that the expense to fill in the dredged out holes in the lower Tuolumne was unreasonable. These holes are perfect habitat for bass, which eat salmon that are spawned in the river. The Districts propose instead to spend millions of dollars on projects to kill the bass; these projects will not work.

The Districts and the City of San Francisco will respond on May 14 to the flow proposal that CSPA and other Conservation Groups developed and proposed for the licensing. Circle the date. That's when CSPA expects the Districts and San Francisco to tell the world that that sky will fall and the Bay Area will become a ghost town if FERC requires them to leave sufficient water in the Tuolumne River to protect and preserve salmon and steelhead in the lower Tuolumne River

*The Conservation Groups include CSPA, Tuolumne River Trust, Trout Unlimited, American Rivers, American Whitewater, Merced River Conservation Committee, Friends of the River, Golden West Women Flyfishers, Central Sierra Environmental Resource Center, and Tuolumne River Conservancy.*