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4 June 2021

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Subject: Protest with Objections to Temporary Urgency Change Petition submitted by California Department of Water Resources and United States Bureau of Reclamation, submitted May 17, 2021; and to proposed Water Board order for conditional approval of same

To whom it concerns:

This letter transmits our protest with objections to the above referenced temporary urgency change petition (TUCP) and related matters.¹

¹ The TUCP with the State Water Resources Control Board was filed for Permits 16478, 16479, 16481, 16482 and 16483 (Applications 5630, 14443, 14445A, 17512 and 17514A, respectively) of the Department of Water Resources 'State Water Project and License 1986 and Permits 11315, 11316, 11885, 11886, 11887, 11967, 11968, 11969, 11970, 11971, 11972, 11973, 12364, 12721, 12722, 12723, 12725, 12726, 12727, 12860, 15735, 16597, 20245, and 16600 (Applications 23, 234, 1465, 5638,

Specifically, the TUCP as proposed will not best serve the public interest; it is contrary to law; and it will have an adverse environmental impact on the Delta, and to salmon fisheries on which northern California Indian Tribes rely for cultural life and nutrition. Rather than treat each of these objections separately, we see them as pieces of a whole story that must be understood as resulting from the drought and the actions of the petitioners, California Department of Water Resources and United States Bureau of Reclamation (collectively, Petitioners) as operators of facilities of the State Water Project (SWP) and Central Valley Project (CVP).

Petitioners wish to apply criteria narrowly from state water law, and as administered by the State Water Resources Control Board. At a time when California has seen below normal to critically dry conditions in seven of the last ten years, it will not suffice to apply these criteria narrowly, because the public at large is affected.²

Specifically, the Petitioner's statement that "the proposed change will not result in injury to any other legal users of water," assumes incorrectly that the only important "legal users of water" are ones with property water rights. The phrase "beneficial users of water," also has basis in state and federal water quality control law, therefore they are also legal users of water. Beneficial users may or may not possess water rights, and may be anglers, recreators, waders, scientists, artists, poets, locally drinking water-dependent, or any person drawn to waters of the Delta for any reason. Petitioners' assumption that the actions of the projects under the TUCP will not harm other legal users of water is narrow and fatuous.

Further, we show in this letter and its attachments that Petitioners' urgency justification for the State Water Board to approve the TUCP is flimsy. (See Attachment 1.) It relies on data irrelevant to evaluating whether in fact the SWP and CVP acted diligently to avoid wasting or depleting its water supplies, when in April and May they appear to have rushed water supplies to senior agricultural water right holders in the Sacramento Valley just before submitting the TUCP on May 17. Despite warnings in March 2021 from Northern California Indian Tribes and environmental non-governmental organizations (NGOs), storage levels representing better prospects for temperature management to protect endangered Chinook salmon later in the year were squandered when these deliveries were made.³ Petitioners failed to act diligently to protect stored

13370, 13371, 5628, 15374, 15375, 15376, 16767, 16768, 17374, 17376, 5626, 9363, 9364, 9366, 9367, 9368, 15764, 22316, 14858A, 14858B, and 19304, respectively) of the United States Bureau of Reclamation's Central Valley Project.

² Since 2000, 13 of 22 years have been below normal to critically dry. See <https://cdec.water.ca.gov/reportapp/javareports?name=WSIHIST>.

³ Letter to Joaquin Esquivel, Chair, State Water Resources Control Board, from the Bay Institute, California Sportfishing Protection Alliance, Natural Resources Defense Council, Defenders of Wildlife, Friends of the River, Golden State Salmon Association, Pacific Coast Federation of Fishermen's Associations, Institute for Fisheries Resources, Restore the Delta, San Francisco BayKeeper, Save

supplies needed to fulfill their lawful duties to meet temperature management and water quality objectives for the Sacramento River and Delta this year, and pre-emptively released stored water for diversion instead.

Harmful algal blooms have become recurring phenomena in the Delta since 1999. This year's drought conditions are expected to result in blooms in stagnant waters throughout the estuary. In fact, they have already begun. (See Attachment 2 to this letter.) This will harm Delta communities, including those reliant on Delta waters for subsistence fishing, water contact recreation, and all manner of other useful, domestic, recreational, economic, and artistic pursuits here.

Drinking water systems divert from the Delta, particularly by Contra Costa Water District and the City of Stockton. No consideration has been given by Petitioners to their water quality needs and rights, nor has compensation (in money or water terms) been suggested for any injury if water quality conditions at their intakes worsen under the TUCP and related drought conditions.

Petitioners now have the state over a barrel, and we concede that a TUCP should be approved—one that also protects the Delta. The State Water Board has statutory water rights and constitutional authority over what becomes of Petitioners' supplies that remain. In the service of reasonable protection of public trust resources, sacred and native fish species, and Delta communities from water-borne and aerosol toxins from harmful algal blooms, the State Water Board should revise the TUCP so that it better comports with the public interest, reasonable and beneficial use of water, the public trust, and environmental justice and civil rights policies during drought.

We urge you to adopt an order that limits exports to municipal/industrial and wildlife refuge contractors, tightens up the July Delta outflow requirement, and precludes further deliveries to settlement contractors on the Sacramento and Feather Rivers (in addition to project allocations already in place). This will free up additional water for needed temperature management and Delta water quality objective compliance later in the summer and early fall.

We, the undersigned, have carefully read the TUCP notice:



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Attachments:

1. Facts Supporting General Allegations Against the TUCP
2. Recent Photos of Harmful Algal Blooms from Discovery Bay, Contra Costa County

cc: Bill Jennings, California Sportfishing Protection Alliance
Doug Obegi, Natural Resources Defense Council
Brandon Dawson, Sierra Club California

Jonathan Rosenfield, San Francisco BayKeeper

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Dante Nomellini, Central Delta Water Agency

Harry Black, City Manager, City of Stockton

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Osha Meserve, Soluri Meserve

Attachment 1 Facts Supporting General Allegations Against the TUCP

1. The TUCP and order for conditional approval are contrary to law because Petitioners failed to perform due diligence prior to submitting their petition.

Petitioners justify their claim of due diligence by having relied on “sound science and methods to forecast and project hydrology and water supply needs.” This is vague and unspecific. They also claim diligent behavior by having limited project allocations and agricultural water service contractor expectations this winter and spring. They further claim that by beginning Water Year 2021 “with relatively high carryover storage after the dry year of 2020,” Petitioners claim they “helped to meet D-1641 requirements through the winter and early spring,” something they now claim they can no longer do without changing the rules under which they are normally required to operate.

Water project allocations are central to Petitioners’ operations of CVP and SWP. Their claim of sound science and methods to forecast project hydrology and water supply needs apparently refers to Bulletin-120 runoff forecasts based on snow water content and precipitation analysis, as well as routine monitoring of reservoir carryover storage. This hydrology forecast includes the timing and volume of runoff from reservoir watersheds. Allocations are then based on requests from contractors, available and anticipated hydrology, and water rights—the pecking order and decision rules by which Petitioners determine how much water shall be allocated to which type of contractor, and the pro rata share of such allocations to each individual contractor. DWR and USBR undertake these actions during normal times.

But suddenly, DWR & USBR state, conditions worsened. Petitioners justify urgency of their petition by blaming their situation of low storage solely on Nature: precipitation is below 50 percent of average, they state, resulting in many reservoirs being “below average” in storage. “This was uncharacteristic,” they state, “and likely due to unpredictable dry soils soaking up snowmelt and substantially reducing runoff into CVP and SWP reservoirs.” By blaming Nature DWR and USBR avoid taking responsibility for their role in controlling flows and water quality throughout the Bay-Delta estuary watershed.

Nature was not unpredictable on this matter. Restore the Delta described these looming conditions already documented by the science community to this Board during the California WaterFix hearings in our sworn testimony. The Petitioners’ claim of “unpredictable dry soils soaking up snowmelt and substantially reducing runoff” is unsupported, baseless nonsense. Instead, the atmosphere may well have evaporated it. A warmer atmosphere is well-known by climate scientists to hold more water as water vapor. In late April and early May, the Sierra Nevada experienced an early heat wave.⁴

⁴ For example, the Feather River city of Quincy at approximately 3,400 feet elevation experienced a high temperature of 85 degrees F on Thursday, April 29.

It is well known that snow can evaporate directly to air, bypassing water's liquid phase through a physical process known as "ablation."⁵ Climate scientist Michael Dettinger alluded to this and related evaporative processes in a December 2020 interview with the Public Policy Institute of California in which he spoke of a "thirsty atmosphere":

The atmosphere has the capacity to draw water up from the land through evaporation. Five factors affect how much water the atmosphere can take up: how warm it is, how humid, the amount of sunshine, the amount of wind, and the available water in soils, plants, lakes, etc. Scientists often refer to the first four as the atmosphere's "thirstiness," or evaporative demand. It varies hour to hour, season to season, and year to year based on these factors.

...

A thirstier atmosphere means the same amount of precipitation leaves less water for plants, streams, reservoirs, and aquifers. We get less benefit from precipitation because a larger proportion goes back into the thirsty atmosphere. Smaller storms in particular may bring little to no water benefit at all if the atmosphere is thirsty.

The bottom line is this—as the atmosphere becomes thirstier, the land becomes drier, even if the amount of precipitation stays the same. Increased persistence and frequency of dry conditions means increased frequency and intensity of drought.⁶

Petitioners are pulling the Water Board's metaphorical "leg" by claiming that unpredictable dry soils soaked up snowmelt and runoff, ringing about as true as the cliché excuse of the family dog eating one's homework. We are in an age of climate change driven by a warming atmosphere that can hold more water than it used to.

Petitioners fail to acknowledge any role that their operations this spring may play in the loss of reservoir water supply for temperature management and Delta water quality protection. Reservoir outflow at both Shasta (A) and Oroville (B) suddenly increased around April 8, 2021, as shown in these two hydrographs below. The red lines in both graphs indicate that reservoir outflow increased dramatically relative to inflow to the Sacramento and Feather Rivers—meaning that reservoir supplies were decreasing faster than they were being replaced by inflow from upstream.

⁵ Definition of "ablation" at <https://nsidc.org/cryosphere/glossary/term/ablation>.

⁶ Dettinger interviewed at <https://www.ppic.org/blog/droughts-arent-just-about-water-anymore/>.

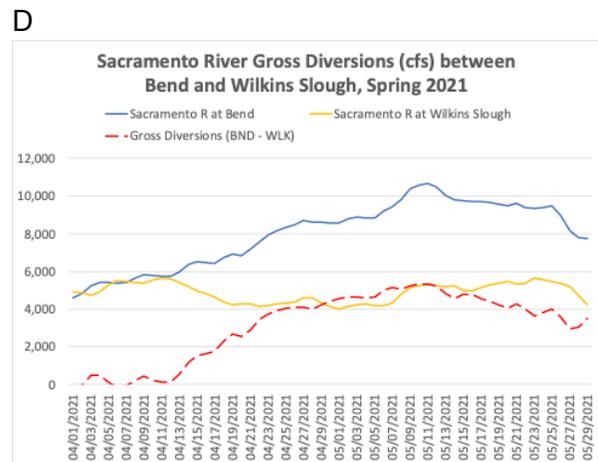
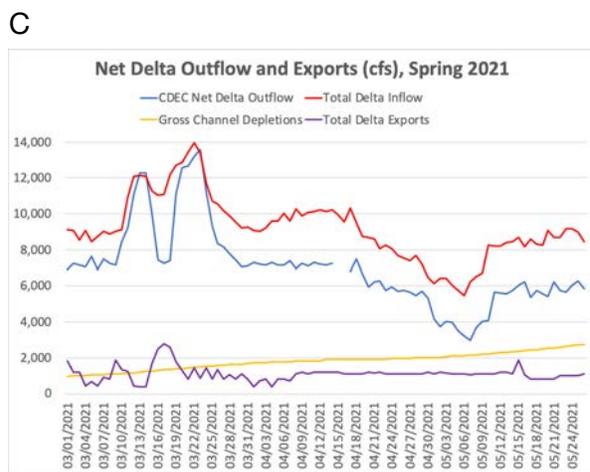
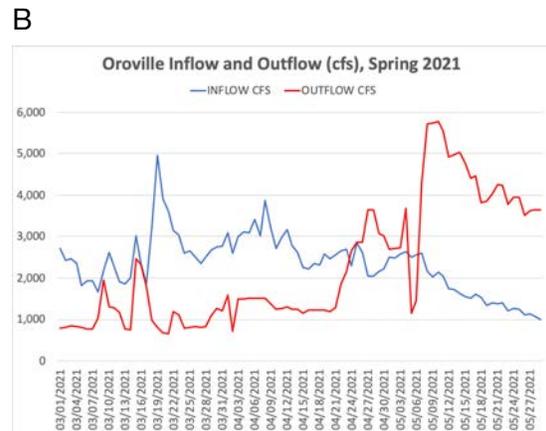
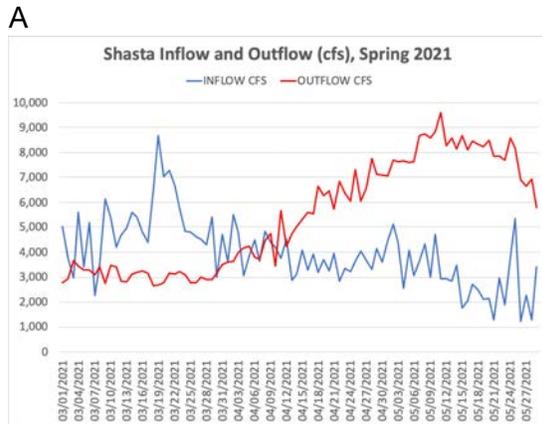


Chart C shows that the spike in reservoir outflows did not reach the Delta—in fact, total Delta inflow (in red, Chart C), net Delta outflow (blue), and total exports (purple) do not respond to the hydrologic signal emanating downstream from Shasta and Oroville outflow releases. Chart D suggests where the flows likely went on the Sacramento River. D shows the flows in the Sacramento River at Bend and at Wilkins Slough, and the dashed red line indicates the difference in flows between the two, which we call “gross diversions” from the river.⁷ (Bend is upstream of the city of Red Bluff, and Wilkins Slough is due east of the town of Arbuckle in Colusa County.) Many senior water right holding Sacramento River Settlement Contractors are located in this reach of the Sacramento River, the largest right holders among them being Glenn-Colusa Irrigation District. We estimate the gross diversion of water between these two stations in this

⁷ USBR delivery data for this time period for the Sacramento River Settlement Contractors was not available from the Central Valley Operations web site.

time frame at about 362 thousand acre-feet (362 TAF)—about 107 TAF between April 8 and 30, and about 254 TAF from May 1 through May 26.⁸

On the Feather River, Lake Oroville also saw a substantial increase in reservoir outflow relative to inflow beginning in the middle of April and increasing sharply in early May, before tapering off to the present. State Water Project operational reports showed that between May 1 and May 30, 116 TAF were delivered to Feather River Service Area (FRSA)—where senior Feather River settlement water right holders are located and who grow rice, which relies on flood irrigation techniques to grow and harvest their crops.⁹ This delivery in May represents about 64 percent of the FRSA’s delivery request year-to-date in 2021—that is, 64 percent of their water demand occurred in the month of May alone this year. This is a large amount of water and likely accounts for much if not all of Lake Oroville releases during the April-to-May 2021 period.¹⁰

In sum, the Petitioners have neither shown nor explained to the State Water Board and the California public their operational behavior during this crucial spring period leading up to their filing of the TUCP. Our objection is that they appear to have delivered nearly 477 TAF to senior water rights holders, deliveries that reveal due diligence to senior water right holders, but not to their solemn duties under California’s Constitution Article X, Section 2, and case law to protect the public trust resources of California for the benefit of all its people, including for environmental justice communities. This is 477 TAF that could have been kept in Shasta and Oroville for release later in the year to help protect Winter-Run and Spring-Run Chinook salmon. And a large portion of that 477 TAF could have been available to help Petitioners—especially DWR—protect Delta water quality under D-1641 later in the summer and early fall this year.

Two municipal water agencies divert water directly from Delta channels, Contra Costa Water District and the City of Stockton’s Municipal Utilities Department. Petitioners have ignored the rights and water quality needs of these water agencies—who serve about 750,000 people—to have safe and good quality water to divert for their municipal and domestic customers. These agencies will likely face higher water treatment costs to protect their customers from high salt concentrations and harmful cyanobacteria, as well as other water quality risks from TUCP alteration of Delta inflows and outflows.

2. The TUCP and order for conditional approval would have unreasonable environmental impacts.

⁸ Estimates derived from California Data Exchange Center stations BND and WLK, daily flow sensor. The estimates provided here may be underestimates—some settlement contractors are located downstream of Wilkins Slough and may have received early deliveries as well.

⁹ FRSA deliveries from Lake Oroville in April 2021 are not reported here because SWP operational reports are not archived online for public review. Past monthly SWP operational reports are undergoing reformatting for disabled accessibility purposes. We urge State Water Board to obtain and consider these data from DWR for a full and complete record prior to action on the TUCP.

¹⁰ As with the Sacramento River Settlement Contractors, this is likely a significant underestimate for Feather River Service Area senior water rights holders, most of whom grow rice.

The proposed TUCP contains these features:

Timeframe	Proposed Action
June 1 through July 31, 2021	June 1 through June 30: Reduce net delta outflow index (NDOI) requirements for salinity control from 4,000 cubic feet per second (cfs) to 3,000 cfs on a 14-day running average
	July 1 through July 31: Reduce NDOI requirements for salinity control from 4,000 cfs to 3,000 cfs on a monthly average. D-1641, Table 3, footnote 8 remains applicable
	Cap the combined SWP and CVP exports at 1,500 cfs when Delta outflow is less than 4,000 cfs. SWP and CVP exports may exceed 1,500 cfs when Delta outflow meets D-1641 or for moving transfer water (after July 1)
June 1 through August 15, 2021	Relocate the Western Delta Agriculture compliance point from Emmaton to Threemile Slough

Source: DWR and USBR, Temporary Urgency Change Petition.

The environmental effects of TUCP provisions would result in less inflow to and less outflow from the Delta to San Francisco Bay. Installation of the False River barrier before the end of June will block tidal salt flows from direct access to Franks Tract, the largest in-Delta open water body. These three facets mean that Delta channel flows will slow, and residence time of water will increase within the estuary.¹¹ Moreover, the presence of estuarine habitat is directly related to Delta outflow. This means that if Delta outflows are reduced, X2¹² migrates further upstream, and the aquatic habitat area that the objective represents will shrink to the relatively narrow width of the Sacramento River channel between Emmaton and Rio Vista from a far greater habitat area in Suisun Bay. So, while the TUCP only proposes reduction in the Delta outflow objective, this objective functions in tandem with the X2 estuarine objective. The State Water Board should acknowledge this in making its findings and determinations about the TUCP. Less outflow and smaller estuarine habitat will result in the following conditions:

- The invasive nonnative clam *Potamocorbula amurensis* (*P. amurensis*), which thrives in saline benthic (bottom-dwelling) conditions, will invade further upstream, have greater opportunity to become established in Delta channels near and upstream of X2 where its voracious grazing rate can wreak havoc on the phytoplankton and zooplankton in the water column.¹³ To the extent that Delta smelt still survive in the Delta, *P. amurensis* will compete strongly with smelt for the same food sources.

¹¹ Residence time is a measure of water stagnation, reflecting slow or no flow conditions. It is often measure in units of days.

¹² X2 is a measure of the physical position of low salinity (about 2 ppt salinity) where historical estuarine habitat is most productive. This “isohaline” measure is best found in Suisun Bay where the area of estuarine habitat will be at its largest. This isohaline migrates back and forth with the tides and the seasons each year, and is closely correlated with Delta outflow to San Francisco Bay.

¹³ This clam also is a prodigious bioaccumulator of selenium in organic forms, as well. This means that its tissues will tolerably hold high concentrations of selenium, but at toxic levels to predators like diving birds (like surf scoters) and bottom-grazing fish (like white sturgeon). Selenium more readily partitions to become bio-available at low flows and long residence times.

- Less inflow to the Delta will mean that flows will be slow to near zero in places. Coupled with rising summertime air and water temperatures, nutrient inputs of nitrates and phosphates, and abundant sunlight, cyanobacteria are expected to bloom strongly this year. Reduced flows resulting from TUCP changes will encourage further harmful algal blooms. Such blooms are already established now in the Delta. (See Attachment 2, Photos of HABs from Discovery Bay, Windmill Cove, and Downtown Stockton taken earlier this week.) Aerosols released by Harmful algal blooms are increasingly understood to contain toxins that, when humans (especially children) inhale them, can irritate lung passages and worsen asthma and other respiratory conditions. The San Joaquin Valley is already well known to have a high prevalence of children afflicted with asthma and other lung diseases. To engage in water quality changes through the TUCP is to harm not just water quality but air quality and public health in the Delta region.
- The presence of harmful algal blooms in the Delta will harm legal beneficial users of water known as “anglers”—people who fish for food routinely and frequently in Delta channels—by shrinking the number of safe fishing pools and potentially the number of surviving fish in Delta channels (since such blooms can be toxic to fish and other vertebrate organisms). This group of legal beneficial users of water and fish is estimated to be in the tens of thousands of people. To the extent they bring family dogs, these family members face risk of harm from aquatic cyanotoxins. A recent environmental justice community survey concerning the Delta Conveyance Project by the California Department of Water Resources shows that members of Delta environmental justice communities consume fish from the Delta as often as four times a month.
- The presence of harmful algal blooms in the Delta will harm legal beneficial users of water known as “recreators”—people who would normally seek out river channels and sloughs to play near, in, and on water during the summer. From Stockton alone, there are potentially tens of thousands of people as well, who enjoy proximity to Delta river channels within a short drive. And many also bring their dogs as well, facing similar risks as with anglers. Furthermore, people throughout the region have endured pandemic restrictions for over a year, may have to endure another difficult wildfire smoke season, which could be complicated by planned or unplanned electric power outages, and will have an understandable desire to escape into Nature and cool off by swimming, boating, water-skiing, and other water contact recreation. Be aware that water skiing spray action could further mobilize cyanotoxins as aerosols from Delta water ways as a result.

The TUCP as proposed by Petitioners lifts not a finger of concern to address this looming nightmare. Moreover, when blooms start to die back, other bacteria come in to decompose the biomass and respire, which decreases the oxygen and can create hypoxic events. Such events can suffocate fish and other aquatic oxygen-consuming organisms. If this happens in the fall, it could be catastrophic for Fall-Run Chinook salmon escapement to Central Valley rivers, and compound the risk to the state of

California of committing cultural genocide against Northern California Indian Tribes. By preventing HABs with flushing flows, the State Water Board can protect public health near to and away from Delta channels and reduce the risk of cultural genocide to the Tribes.

In sum, the TUCP, combined with the False River Barrier (for that's how it will be in reality), represents the privileging of powerful agricultural interests in the Sacramento and San Joaquin Valley, who have their "call" on CVP and SWP reservoirs (Shasta, Oroville, and Friant, especially) for water deliveries without having to share in the costs the rest of California and especially Delta residents, farms, and ecosystems must bear during the drought. Some of the stored water will be used for temperature management later in the summer and early fall in an attempt to stave off disaster for Chinook salmon runs, which are sacred to Northern California Indian Tribes and have long been vital to commercial fishing operations. The Tribes and the commercial fishing operations are not merely self-interested in this advocacy however—they speak for the fish and they speak for the rest of the California and American public who enjoy eating salmon. Salmon is food, salmon is life.

But some of the stored water presently in Shasta, Oroville, and Friant is not for temperature management but for fulfillment of senior water rights during the rest of the irrigation season. The Petitioners, prior to filing their TUCP on May 17, betrayed this public trust by delivering at least 477 TAF of water from their reservoirs to private rice-growing interests in the Sacramento Valley. These propertied agencies and their customers count on the CVP and SWP treating them as first in line before Nature in the allocation of drought-period water supplies. Their selfishness will be remembered as a betrayal that threatens to contribute to cultural genocide of the Northern California Indian Tribes whose ways of life and cultural identities revolve around Chinook salmon.

3. The TUCP as Proposed and Order for Conditional Approval Are Not in the Public Interest.

Petitioners appear to have betrayed their solemn obligations under the California Constitution's reasonable use policies, their duties to protect public trust resources for benefit of the California public, and state policies to prevent environmental injustices and civil rights, including the state's policy recognizing and protecting the human right to water. None of these fundamental policies in law were suspended by Governor Newsom's drought emergency declarations. Moreover, it remains state policy during this drought crisis to balance co-equal goals of water supply reliability and ecosystem restoration and reduce Delta reliance to meet California's water needs—policies contained in the Delta Reform Act of 2009. Like the other fundamental policies of California's water law framework, these also were not suspended by Governor Newsom's emergency drought declaration; they continue in full legal force. The TUCP, as proposed and if approved, would be contrary to all of these policies.

The State Water Board, as a state agency charged with public trust stewardship, must still use its authority to seek justice in its deliberations on this TUCP. Approving the TUCP as proposed would fail to correct this injustice of irresponsible water operations by Petitioners in April and May this year, threatening Northern California Indian Tribes with cultural genocide and Delta environmental justice communities with aquatic aerosol toxins and public health impacts from harmful algal blooms.

Therefore, approving the TUCP as proposed would fail to serve the public and right this injustice, and would not be in the public interest.

4. Recommended Conditions Under Which This Protest/Objection May be Disregarded and Dismissed to Resolve Our Objections.

To resolve our objections the State Water Board should condition its approval of an order in this matter as follows:

- Limit total exports to no more than 750 cfs per day, on a three-day average from June 1 through August 15. This translates to nearly 1,500 acre-feet per day¹⁴ that should be prioritized for municipal and industrial contractors (CVP and SWP), and wildlife refuges south of the Delta.
- The State Water Board should limit San Joaquin River Exchange Contractors' "call" on Friant to facilitate release of flows to the San Joaquin River that will supplement releases from New Melones to a total of 50,000 acre-feet between June 1 and August 15, while the rest of the contractors' "call" should be released into the mainstem San Joaquin River. Released from Friant Dam to the San Joaquin, these flows will protect against spread of harmful algal blooms and protect public health along the San Joaquin River, including in Stockton-area water ways.
- Similarly, the State Water Board should curtail further deliveries to Sacramento and Feather river settlement contractors as unavailable due to water quality (including temperature management) concerns along the Sacramento and Feather Rivers, before, but especially, once the Board curtails junior water right holders throughout the Delta watershed this summer. This condition will reduce pressure on and extend the availability of the reservoirs' cold water pools for later use.
- Maintain the 14-day average proposed in June for July as well. Requiring more flows to the Delta from the San Joaquin, from curtailed Sacramento Basin settlement contractor diversions, and less total Delta exports will help Shasta and Oroville reservoirs "afford" to provide the extra flow needed during July and August to help

¹⁴ 1 cubic foot per second (cfs) translates into 1.98 acre-feet per day by multiplying the 1 cfs by 3600 seconds in an hour and by 24 hours in a day, then dividing that result by 43,560, the number of square feet in an acre. (750 cfs average exports ==>(3600 x 24)/43560 = 1,485 acre-feet per day.

prevent both harmful algal blooms and reduce losses of Chinook salmon later in the season.

- Incorporate the CSPA/Save California Salmon/California Water Impact Network Proposed Temperature Management Plan for Central Valley Project Shasta-Trinity Division¹⁵, to improve survival of winter-run, spring-run, and fall-run salmon, and green and white sturgeon in the Sacramento River, as well as to improve survival of spring-run and fall-run salmon in the Klamath/Trinity watershed. Steelhead trout would also benefit. A prime rationale for this plan is to reduce significantly the introduction of warmer Trinity Lake water to the Sacramento River basin, which would compromise the cold water pool still available in Shasta Lake at present.¹⁶ This plan would:
 - Limit June-through-October releases from Shasta-Keswick dams to 5,000 cfs, using primarily cold-water pool, to maintain Keswick release at less than 54°F.
 - Eliminate June-through-October use of the Spring Creek power tunnel between Whiskeytown and Keswick reservoirs.
 - Maintain June-through-October flow of 300 cfs to Whiskeytown Reservoir through the Carr powerhouse, increase June-October releases to Clear Creek

¹⁵ Complete temperature management plan was sent as a letter from California Sportfishing Protection Alliance, Save California Salmon, and California Water Impact Network to Joaquin Esquivel, Chair, State Water Resources Control Board, *Proposed 2021 Temperature Management Plan for Central Valley Project Shasta-Trinity Division*, May 23, 2021.

¹⁶ The CSPA/SCS/C-WIN temperature management plan (TMP) states: “The CSPA TMP will meet its purpose by making more effective use of cold-water pools in Shasta and Trinity reservoirs.

“The CSPA TMP will severely reduce the export of Trinity River water to Whiskeytown Reservoir. In addition, the CSPA TMP proposes to release all Trinity exports down Clear Creek, rather moving water from Whiskeytown through the Spring Creek Powerhouse into Keswick Reservoir. Thus, summer water from the Trinity will enter the Sacramento River 10 miles downstream of Keswick Reservoir. Water released to Clear Creek from Whiskeytown Reservoir is also colder than water released from Whiskeytown to the Spring Creek Powerhouse, because releases to Clear Creek are drawn from deeper in Whiskeytown Reservoir. Colder releases from Keswick Reservoir, no longer mixed with warmer releases through the Spring Creek Powerhouse, will improve survival of winter-run salmon eggs this summer in the prime 10-mile spawning reach of the Sacramento River downstream of Keswick Dam.

“The CSPA TMP proposes to hold in Trinity Reservoir a substantial portion of the water not exported to the Sacramento. In addition, the CSPA TMP proposes to increase summer and fall releases from Trinity and Lewiston reservoirs to the Trinity River. This will improve habitat conditions for Trinity River and lower Klamath River salmon in this critically dry year.

“The proposed changes in operation would save total storage and cold-water pool volume in both the Shasta and Trinity reservoirs for the coming summer and fall, and for next year. The proposal would substantially reduce power production and irrigation deliveries.

to 300 cfs, and increase June-October releases from Trinity-Lewiston dams to the lower Trinity River to 800-870 cfs.

Attachment 2

**Photos of Harmful Algal Blooms in Discovery Bay,
Contra Costa County, Late May 2021**









Photos of Harmful Algal Blooms forming at Windmill Cove
by Gloria Alonso Cruz, Restore the Delta Climate Water Team





Photos of Harmful Algal Blooms forming at University Waterfront Hotel, Downtown Stockton

by Gloria Alonso Cruz, Restore the Delta Climate Water Team









