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Subject: Protest: Temporary Urgency Change Petition filed by the California Department of Water Resources (DWR) and the United States Bureau of Reclamation (Bureau) Regarding Permits and a License of the State Water Project and the Central Valley Project

To whom it concerns:

Restore the Delta once again protests the latest Temporary Urgency Change Petition (TUCP), as so referenced in the Subject of this letter above.¹

We, the undersigned, have carefully read the TUCP notice and the TUCP, and state our understanding that the TUCP:

¹ Specifically, our protest is filed against the petition 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, 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.

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- Suspends X2, the estuarine portion of the Delta outflow standard during April through June, replacing it with a flat 4,000 cubic-foot-per-second (cfs) outflow objective (based on a 14-day running average), and apparently disconnects outflow from connection with any estuarine salinity objective, regardless also of high runoff from earlier in the water year.
- Expands duration of the Vernalis critically dry year flow objective of 710 cfs on a monthly average) from May 16 through June 30 to the three full months of April 1 through June 30, a reduction in the flow objective of at least 50 percent or more for this time of year.
- Leaves Sherman Island in the western Delta short of fresher water supplies by moving the Emmaton salinity objective of 2.78 mmhos/cm (on a 14-day running average) from Emmaton to Three Mile Slough three miles further upstream along the Sacramento River. This reduces the amount of water that would be needed from storage to push tidal salt water further downstream. It is a moving of compliance “goal posts.”
- Sets a maximum combined export limit of 1,500 cfs between April 1 and June 30 applied to the Jones (Central Valley Project) and Banks (State Water Project) pumping plants. This is justified to meet Byron-Bethany Irrigation District and State Water Project South Bay Aqueduct municipal and industrial water supply needs.²

In its March 18 cover letter for the latest TUCP, Petitioners state that modifications to their permit conditions (which are also simultaneously part of water right decision [D-1641] provisions and the regulatory water quality objectives and beneficial uses of the 1995-2006 Bay-Delta Plan) are urgently needed because of “extraordinarily dry conditions” of the previous two water years (WYs 2020 and 2021), plus record dry conditions during January through March (to date) 2022 and “in combination with the potential for low precipitation and associated low reservoir storage in the future....”

Specifically, the TUCP *as proposed* will not best serve the public interest; it is contrary to law and the principle of due diligence; 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. We recognize that storage conditions are dire this year. We protest the petition so that the State Water Resources Control Board considers our position that the order the Board approves places conditions that will curtail unreasonable deliveries of water to senior water right appropriators. Meeting their claims for water supplies this year would render available supplies insufficient to protect all other vital needs of Delta environmental justice communities and Northern California Indian Tribes and their cultural resources for water this coming summer, and to provide far greater assurance than is found in the TUCP that loss of salinity control in the Delta will be avoided—loss of which would impact drinking water not just for Delta environmental justice communities and cities, but communities and cities throughout the length

² California Department of Water Resources and United States Bureau of Reclamation, *Temporary Urgency Change Petition Regarding Delta Water Quality*, March 18, 2022, p. 2-3. Accessible 18 March 2022, at https://www.waterboards.ca.gov/waterrights/water_issues/programs/applications/transfers_tu_notices/2022/20220318_tucp.pdf.

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of state and federal water systems. Petitioner DWR is fond of stating that its system serves clean water to 27 million people in California—yet loss of salinity control would completely undermine that claim for potentially years to come.³ Petitioner DWR needs to behave like this is the water emergency it really is. And the State Water Board can assist them to do so by conditioning the TUCP with robust limits on, if not zero, deliveries to senior water right holders. 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. Since 2000, 13 of 22 years have been below normal to critically dry.⁴ The cumulative environmental effects of such persistent drought is having enormous impacts on the public, and water-related impacts figure prominently in these impacts.

Rather than treat each of these objections separately, we see them as elements of a coherent story that must be understood as resulting from the drought and response actions of the California Department of Water Resources and United States Bureau of Reclamation (hereafter Petitioners) as operators of facilities of the State Water Project (SWP) and Central Valley Project (CVP). As we stated in our letter of 7 January 2022 to the Water Board on the previous Draft Reconsideration Order, repetition of good intentions followed by destructive water management decisions strongly indicates that Petitioners and the Water Board engage in behavioral pattern and practice failures to protect public trust resources of California in the Delta and upholding reasonable water uses, methods of water use, and reasonable methods of diversion.⁵

The Board has long-used the unique water rights of the federal Central Valley Project and the State Water Project to implement water quality objectives in **both** temporary urgency change petitions as well as D-1641 and the Bay-Delta Plan. The projects' water rights are unique for two reasons: First, the scale and coordinated operation of their facilities have Delta and watershed-wide hydrologic, ecologic, economic, and environmental justice impacts. Second, because of the projects' coordinated scale of impact, the Board has historically conditioned Petitioners' water rights with water quality objectives from the Bay-Delta Plan and D-1641 and maintained continuing jurisdiction accordingly. This means that much of D-1641 implementation and compliance is achieved via SWP and CVP operations, including those located in the Delta. Thus, these particular water rights play a dual role: they not only govern operations of the projects, those operations must achieve full compliance with the Bay-Delta Plan and D-1641 on behalf of all water right holders in the Delta watershed. Water right change petitions concerning the CVP and SWP must of necessity address not only injury to other water right holders, but also violations of water quality objectives that *harm beneficial users of water*.

³ “The Sacramento-San Joaquin Delta plays a major role in California's prosperity by supplying drinking water to almost 27 million residents and fueling a \$32 billion agricultural industry,” at <https://water.ca.gov/Programs/Bay-Delta>; and “The California State Water Project (SWP) is a multi-purpose water storage and delivery system that extends more than 705 miles—two-thirds the length of California. A collection of canals, pipelines, reservoirs, and hydroelectric power facilities delivers clean water to 27 million Californians, 750,000 acres of farmland, and businesses throughout our state,” at <https://water.ca.gov/Programs/State-Water-Project>.

⁴ See <https://cdec.water.ca.gov/reportapp/javareports?name=WSIHIST>.

⁵ Letter of Barbara Barrigan-Parrilla and Tim Stroshane to State Water Resources Control Board Chair E. Joaquin Esquivel, “Comment Letter: 2021 TUCP-TMP Reconsideration,” 7 January 2022, p. 2.

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In this instance, waiving or relaxing water quality objectives under TUCPs will by definition undo protections for non-propertied beneficial users and therefore harm them; this is what TUCPs pertaining to these particular water rights propose to cause, and therefore exclusion of harms (i.e., injuries) to beneficial users by the Water Board is unreasonable and an abuse of agency and Petitioners' discretion.

Because of the dual role of these water rights, it is logical and reasonable that the phrase "legal [or "lawful"] users of water" include both propertied and non-propertied water users and their protection from harms stemming from any type of change petition. This was applied by the hearing officers during the 2016-2018 California WaterFix water right change petition proceeding. Board rejection of this understanding on page 40 of the Reconsideration Order⁶ is improper sophistry, and does not make realities of waiving water quality objectives go away, realities like spreading harmful algal blooms, threatening extinction of native fish, and increasing Delta salinity. By defining away non-propertied beneficial users of water like environmental justice communities, your recent racial diversity, equity, and inclusion resolution becomes empty words when the Board addresses water rights of the CVP and SWP.⁷

The larger issue then is to what degree deliveries to all water contractors becomes an obstacle to the constitutional issue posed by Article X, Section 2 of the California Constitution: In short, is continued application of the priority water rights system in the watersheds of the Delta an unreasonable use, unreasonable method of use, and an unreasonable method of diversion of water and therefore unlawful in California during drought of this magnitude?

We contend that it is. At the January 5, 2022 workshop, Gary Bobker of the Bay Institute correctly reasoned that the allocations of water permitted under last year's TUCP allocated the burden of the drought from the Settlement and Exchange Contractors of the CVP and SWP to the rivers and fisheries of the Bay-Delta watershed. That choice represented allocation of over 2.5 MAF of water to growers irrigating export crops like rice and almonds, according to Table 1 of the Water Board's Draft Reconsideration Order, while a mere 289 TAF accumulated in Shasta Reservoir by the end of the 2021 water year. This is a moral as well as an ecological catastrophe when we treat natural systems that sustain all life so poorly. It is incorrect to treat the 289 TAF that was saved at Shasta some kind of victory, when so much more could have been done with more equitable allocation priorities in water management. These two catastrophes are unreasonable and should be ended for the duration of each drought that strikes the Bay-Delta watershed, and cannot reasonably be construed as acting with due diligence, without significant environmental impact, and consistent with the public interest, certainly not with respect to environmental justice concerns and the public trust doctrine.

For the native fish of the Delta watershed, two species stand out as bearing the brunt of moral and ecological catastrophe. First, it was reported by the California Department of Fish and Wildlife (CDFW) that zero Delta smelt were found in the department's fall midwater trawl survey. There were just 49 captured the year before. This record of decline comes about because of a pattern and practice in Petitioners' operations based on Board regulatory management that has

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https://www.waterboards.ca.gov/waterrights/board_decisions/adopted_orders/orders/2022/wro2022_0095.pdf

⁷ https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2021/rs2021_0050.pdf

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failed to protect Delta smelt. There is widespread belief in the environmental and scientific communities that Delta smelt is now extinct in the wild.⁸ Second, during the previous 2012-2016 drought, the Bureau of Reclamation failed to properly measure temperature conditions in Shasta Reservoir, which later contributed to low production of juvenile Chinook salmon from heavy temperature-dependent mortality. Then this past year, Bureau operations in 2020 left Shasta Lake with such low supplies that once again the Bureau's releases were too warm for baby and juvenile salmon in the Sacramento River. This resulted in egg-to-fry survival of winter-run Chinook salmon (2.56 percent) in 2021, which was the lowest recorded such survival rate in the last quarter-century. Let us remember at this point that according to Table 1 of the Draft Reconsideration Order, the Bureau delivered 1.375 MAF to Settlement Contractors with senior water rights holders.⁹ Restore the Delta noted in our June 4, 2021, protest that the Bureau delivered an estimated 362 TAF in the vicinity of Settlement Contractors along the Sacramento River between April 8 and May 26.

What if that water had remained in Shasta Lake at depth where a portion of it could have cooled for the summer months?

The pain of drought would have been more equitably endured in the agricultural community and salmon species likely would have fared better—since fish do need flowing water to complete their life histories. But as it happened, winter-run Chinook salmon edges closer to extinction, rushed along by decisions driven by a priority water rights system applied in the Central Valley Project and the State Water Project. This threat hangs like a sword of Damocles over Northern California Indian Tribes dependent on Chinook salmon, sportfishing anglers, the commercial fishing industry, and their public customers who enjoy salmon in their diets. In this scenario, the water rights system unreasonably allowed diversion and use of water at a time when a searing drought required more equitable sacrifice to protect all life, not unfair and inequitable protections for almond and rice exports.

Finally, there are less well-recognized beneficial uses (that is, ones not officially designated by the State Water Board) not yet accounted for by any TUCP work done by either Petitioners or the Water Board. Despite being unrecognized, they deserve protection as a matter of human rights. As inequality has increased in our society, the Delta is not exempt from the epidemic not only of the coronavirus but of people losing their stable jobs and homes in recent years. In 2019, the San Joaquin County Point in Time count identified 921 unhoused residents. Since then, due to events like the pandemic and affordable housing crisis, that number has grown tremendously to approximately 5,000, a dramatic increase. A more exact figure awaits completion of this year's Point in Time count conducted by our local colleagues, and is currently underway. Whole communities of unhoused residents are forced to move from encampment to encampment. More and more, they migrate toward Delta water ways to set up camp. Living along the

⁸ Tom Cannon, "Delta Smelt Status," *California Fisheries Blog*, November 15, 2021, accessible at <https://calsport.org/fisheriesblog/?p=3978>. A refuge population of Delta smelt is maintained at the University of California at Davis, in the hope that someday Delta conditions will be more suited to their reintroduction into their original geographic habitat.

⁹ State Water Resources Control Board, *Draft Reconsideration Order*, released December 15, 2021, Table 1, p. 11; accessible at <https://www.waterboards.ca.gov/drought/tucp/docs/2021/2021-12-15-draft-order-on-reconsideration.pdf>.

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waterways puts these individuals at a higher danger of being exposed to HABs than others in our community and this must not be overlooked by the DWR, USBR, or the Water Boards.

Facts Supporting General Allegations Against the TUCP

- 1. The proposed TUCP is contrary to law because Petitioners failed to perform due diligence prior to submitting their petition. Due diligence now demands suspending nonessential deliveries to state and federal senior water rights contractors because otherwise they would threaten to collapse the hydraulic salinity barrier in the Delta.**

For the June 2021 TUCP, Petitioners justified their claim of due diligence by having relied on “sound science and methods to forecast and project hydrology and water supply needs.” They claimed diligent behavior by having limited project allocations and agricultural water service contractor expectations during the winter and early spring. They further claimed that by beginning Water Year 2021 “with relatively high carryover storage after the dry year of 2020,” Petitioners “helped to meet D-1641 requirements through the winter and early spring,” something they claimed in May 2021 they could 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 referred 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 included 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 in April 2021, DWR & USBR state, conditions worsened. Petitioners justified urgency of their petition by blaming 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, Petitioners sought to avoid taking responsibility for their role in controlling flows and water quality throughout the Bay-Delta estuary watershed, their own lack of diligence in protecting stored water supplies.

That was last year. State climatologist Michael Anderson of Petitioner DWR told the State Water Board’s January 5th workshop that the state endured record heat since 2019, that Petitioner DWR staff had “difficulty” measuring the lack of expected runoff in April 2021, and that Petitioner DWR lost “numerous” monitoring stations due to wildfires in 2020 and 2021. His colleague, D. Rizzardo of Petitioner DWR acknowledged these difficulties make runoff forecasting harder, particularly in the Feather River Basin.

We are now midway through Water Year 2022. The first quarter ending December 31 showed major California snow-sheds reporting 157 percent of normal snow water content, consistently

so from north to south in the Sierra and Cascade regions, as Table 1 shows.¹⁰ However, rain and snow all but ceased from the end of December through the end of March this year. Snow water equivalents fell steadily. As a result, the snowpack dwindled rapidly, and lacking storms, was not replaced. Table 1 shows its rapid fall to 93 percent of normal at the end of January, 64 percent of normal by the end of February, and just 39 percent of normal statewide by the end of March this week.

A few California Data Exchange temperature sensors (see Table 2) indicate that between the end of December and the end of March, there were 52 days in Quincy where average daily temperatures exceeded 32 degrees F, and of those 20 days were above 40 degrees F. At Blue Canyon, there were 80 days at or above 32 degrees F and 61 of those were above 40 degrees F. Table 1 also indicates that the north snow-shed region has the lowest snow water content.

This lack of water in the north is confirmed by Table 3, showing Trinity, Shasta, and New Melones with volumes below 40 percent of their storage capacity and well below normal storage levels for this time of year. Table 3 also compares these reservoirs' levels to their 2021 levels as of March 29, and shows Trinity, Shasta, and New Melones well below last year's levels—just before last year's April runoff infamously disappeared.

Conditions in Table 3 appear to validate the Petitioners' expectations of using Oroville and Folsom to manage compliance with Delta water quality objectives this year.¹¹ Their storage levels exceeded their respective volumes at this time last year, fortunately. The problem is that Petitioners' Central Valley Project and State Water Project still expect they should deliver substantial amounts of water supplies to senior water rights contractors, as well as a questionable and unclear volume of "health and safety" exports to junior contractors from the Delta. Senior water rights contractor and export demands are undisclosed in the TUCP.

First, proposed "health and safety" exports are mentioned as such about sixteen times in the TUCP document. However, these references to "health and safety" are all only in passing; there is no list of which entities are associated with these references. The term "health and safety" is also defined only in passing as "minimum demands of water contractors for domestic supply, fire protection, or sanitation during the year." In two other places, however, we find discussion in the TUCP of "export limits" in parts 1 and 2 which differ from these references. The purpose of these exports are to supply Byron-Bethany Irrigation District and unspecified SWP South Bay Aqueduct contractors to serve municipal and industrial uses. Domestic uses and "health and safety" uses are omitted from key descriptions. We respectfully remind the Water Board that domestic uses are still prioritized over irrigation in the California Water Code.¹² The State Water Board needs to gain clarity from Petitioners on the recipients and purposes of these proposed exports. The water cost of these exports could be as much as 270,000 acre-feet over the ninety-one days covered by this TUCP.¹³ Which is it, or is it both?

¹⁰ Tables 1 through 6 are found in Attachment 2 to this letter.

¹¹ TUCP, *op. cit.*, p. 1-2 and 1-9.

¹² California Water Code section 106, verified 4 April 2022 at https://leginfo.ca.gov/faces/codes_displaySection.xhtml?sectionNum=106&lawCode=WAT.

¹³ Estimated as follows: 1500 cfs x 3600 seconds per hour x 24 hours per day x 91 days (for the TUCP period) divided by 43,560 cubic feet per acre-foot = 270,744 acre-feet.

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As shown in Table 4 below, a year ago, the four largest federal reservoirs had 5.58 million acre-feet in storage; this year they have just 4.06 million acre-feet, just 72 percent of last year's levels.¹⁴

Second, and likely larger, are deliveries Petitioners made the last two years to senior water rights contractors¹⁵ of the CVP and SWP. Table 5 shows that CVP settlement and exchange contractors received 2.2 million acre-feet (MAF) in 2020 deliveries and 1.6 MAF in 2021. SWP Feather River settlement contractors¹⁶ received 590 thousand acre-feet (TAF) from January through September 2021.

Combined in 2021, these CVP senior water right contractors received 40 percent of total stored supplies from the four reservoirs depicted in Table 4 above as of last March prior to the disappearance of expected runoff in April.¹⁷ Of the seniors' deliveries been held for carryover to this year, these five major reservoirs might have had nearly 27 percent more stored volume than at present and the projects would be better positioned to avoid the most severe drought impacts possible this year.¹⁸ But no. This was storage lost due to Petitioners' decisions, not caused by Nature. This was not diligent management of water storage.

Just six Sacramento River settlement contractors received 82.4 percent of senior water contractor deliveries in 2020, and the same six received 84.1 percent in 2021, as Table 6 shows. By far the largest senior water contractor is Glenn-Colusa Irrigation District, receiving 671 TAF in 2020 and 505 TAF¹⁹ in 2021, about 46 percent of total Sacramento River settlement contractors' deliveries that latter year.²⁰

The TUCP fails to disclose Petitioners' plans for senior water rights contractor deliveries. It vaguely acknowledges "critical water supply needs" (p. 1-2) and "Shasta operations would focus on managing temperature requirements and *senior water rights and riparian demands* along the upper Sacramento River." (p. 1-9) Shasta has about three-fourths the storage it had one year ago, and things went poorly for hatching winter-run Chinook salmon last year in the upper Sacramento. With less water fears of things being even worse for winter-run Chinook salmon are entirely reasonable. Things, however, went well for deliveries to senior water contractors, as we just pointed out. This pattern of poorly managed water storage reflects a lack of diligence on behalf of all state and federal water users and all concerned beneficial users. The State Water Board must condition the TUCP to require adequate cold water supplies from Shasta be sufficient to protect the fish this year. Such a priority condition to will help stave off further

¹⁴ These federal reservoirs targeted during the Trump administration to find ways to deliver more water to their agricultural customers.

¹⁵ We use "senior water right contractors and "settlement contractors" interchangeably. Note also that "settlement contractors" within the CVP also include San Joaquin River exchange contractors who are located south of the Delta.

¹⁶ Feather River settlement contractors are synonymous with the Feather River Service Area of the State Water Project, and are also senior water rights contractors within the SWP's service area.

¹⁷ We estimate this percentage as follows: 2.2 MAF/5.5 MAF for storage x 100% = 40%.

¹⁸ We estimate this as 1.09 MAF/4.06 MAF in storage this year 100% = 26.8%.

¹⁹ 505 TAF is approximately 164 billion gallons of water based on a conversion factor of about 325,581 gallons per acre-foot. It is enough water to serve about 1.1 million households with water supplies for one year. (Two households use approximately 1 acre-foot of water annually.)

²⁰ This 46 percent estimate is obtained by dividing 2021 total by total for 2021 in Table 5 above.

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destruction of the salmon, a central cultural resource for Northern California Indian Tribes, and a tribal environmental justice and cultural genocide²¹ issue of the first order.

There is another crucial diligence problem with this TUCP.

Since the 1930s it has been long established knowledge and practice that a fresh-water hydraulic barrier to incoming tidal salt water is necessary to divert water and facilitate exports of surplus supplies from the Delta.²² This barrier volume is factored into how much water is released to meet Delta export contractor water demands with acceptable salinity levels during normal operations of both CVP and SWP. It is sometimes referred to as “carriage water” since it “carries” water for export from the Delta Cross Channel (when it is open) to the central Delta to the San Joaquin River. In dry years, when water transfer markets form, a factor for carriage water must be incorporated into each transfer to ensure each water deal is consummated to the satisfaction of the receiving party (in terms of quantity of acceptable-quality water).

This year, the storage situation is so dire there may not be enough water in the coordinated CVP/SWP system to maintain this hydraulic barrier, according to Petitioners’ TUCP:

If the requested April 1 through June 30, 2022 modifications to D-1641 Table 3 are not granted, the Projects may have to supplement inflows, through reservoir releases, into the Delta in order to meet the outflow requirements specified in D-1641. Granting this petition will help delay the depletion of much-needed storage throughout the spring in order to provide for fish and wildlife habitat, Delta water quality, and exports for critical needs later in the year. Estimated reservoir storage impacts include the likelihood of substantial decreases in storage due to the extremely dry conditions as well as reduction in adequate cold-water reserves that would have been available to meet regulatory requirements protecting salmon and other cold-water fish species in the summer and fall of 2022. ***Further impacts could even result in a “loss of control” over salinity encroachment in the Delta in 2022 and into 2023 in a continued drought scenario. “Loss of control” describes a condition in which very low storages in the major Project reservoirs will not allow sufficient release capability to control intrusion of ocean water into the Delta, which would make the Delta water quality incompatible with in-Delta beneficial uses. This condition would persist until Northern California receives rainfall that produces sufficient runoff to flush the Delta of ocean water, which would once again allow for these in-Delta beneficial uses. Failure to sufficiently control Delta salinity would jeopardize the ability to provide for minimum health and safety supplies for communities both within the Delta and those who rely upon the Delta for water supply.***²³

Deliveries to senior water right contractors at quantities at all close to those in 2020 and 2021 would contribute greatly to further depletion of reservoir storage, though this is omitted from this frightening discussion of loss of salinity control in Delta waters. This

²¹ “Cultural genocide” is “the systematic, deliberate destruction of a culture.” Benjamin Madley, *An American Genocide: The United States and the California Indian Catastrophe*, New Haven, CT: Yale University Press, 2016.

²² California Department of Public Works, *Bulletin 27, Variability and Control of Salinity in the Sacramento-San Joaquin Delta*, 1931, pp. 44-45.

²³ TUCP, pages 1-17 to 1-18. Emphasis added.

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scenario must be avoided at all costs. The senior water rights contractors share in a significant portion of these costs, since, after all, they received beneficial deliveries while many other contractors and the rivers' ecosystems received little or no supplies during this drought. They were dealt winning hands from the CVP and SWP in 2020 and 2021 and in so doing, contributed greatly to the predicament where Petitioners' operating staff could lose salinity control in the Delta. This is Exhibit A of what we mean when we say that continuing prior appropriation applied to CVP and SWP allocations and operations under such dire storage and weather conditions would be madness, and therefore an unreasonable use and diversion (from storage) of water.

Environmental justice communities and wealthier communities reliant on Delta supplies for drinking water would be harmed if insufficient water is devoted to protecting the hydraulic barrier in the Delta. The above quote so much as agrees one that loss of salinity control would "jeopardize the ability to provide for minimum health and safety supplies for communities both within the Delta and those who rely upon the Delta for water supply."

Three municipal water agencies diverting water directly from Delta channels: Contra Costa Water District, the City of Antioch, and the City of Stockton's Municipal Utilities Department would also be harmed. 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 drinking 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.

In addition, nearly 80 Delta-based small community water systems could be harmed, if not immediately, not long after loss of salinity control occurs.²⁴ There are numerous CVP and SWP municipal and industrial contractors that rely on imported water in the San Joaquin Valley, San Luis Obispo and Santa Barbara counties, and the service area of the Metropolitan Water District of Southern California.²⁵ Cities like Tracy, Fresno, Bakersfield and others would be affected. National wildlife refuges rely on imported supplies from the Delta in the San Joaquin River and Tulare Lake basins. Loss of salinity control would worsen drought conditions for native and introduced fish and wildlife species dependent on these water ways, as well as migratory waterbird populations.

San Joaquin River exchange contractors normally import Delta flows that derive from Shasta reservoir. On April 1, the Bureau announced that these senior water rights contractors would start receiving deliveries from releases at Friant Dam (Millerton Lake), already "calling" on their basic, original water rights transmuted under drought conditions to what storage is available at

²⁴ California Department of Water Resources, *Small Water Suppliers and Rural Communities at Risk of Drought and Water Shortage Vulnerability and Recommendations and Guidance to Address the Planning Needs of These Communities*, Report pursuant to Section 10609.42 of the California Water Code, Draft, March 2020, prepared by Water Use Efficiency Branch, supplemental Excel database file containing SWS Risk Scores. Accessed 17 April 2020, but found not accessible. DWR has at least temporarily taken down the mapping tool and report links that supported this report. In the meantime, this report and associated data and infographics are available from Restore the Delta on request.

²⁵ Metropolitan's service comprises urbanized portions of Ventura, Los Angeles, Orange, San Bernardino, Riverside, and San Diego counties.

Millerton Lake behind Friant Dam.²⁶ Such early deliveries to senior water rights contractors are exactly the kind of action the Bureau took with releases last year from Shasta Lake. The strategy is to send along deliveries while there are still supplies in the lakes; pay little heed to what is left for meeting other water supply or compliance requirements. The April 1 announcement by the Bureau will affect municipal and domestic supplies for the cities of Fresno, Bakersfield, Lindsay, Orange Cove, and Strathmore, all of whom contract for water service from the Friant-Kern Canal. These communities and the agricultural districts throughout the Friant-Kern Canal service area will likely be forced to pump more groundwater to maintain service to their customers.

We merely respond to a disaster scenario that Petitioners have raised as a possibility in their TUCP request. It will be up to the Water Board to ensure that all actions are taken that would head off such a preventable catastrophe from occurring in California. The implications we outline are of course partial, but it is highly suggestive of drastic stakes. If the TUCP is truly going to protect storage this year, the Water Board must condition it to forego deliveries to senior water right contractors north and south of the Delta. This will enable more water kept in storage to protect young salmon, stave off cultural genocide against Northern California Indian Tribes, protect not only Delta environmental justice communities but also the “27 million Californians” that Petitioner DWR so proudly boasts of serving with clean water at two of its web pages.²⁷

2. Failure to condition approval of the TUCP on suspension of deliveries of water to senior water rights contractors would have unreasonable environmental impacts.

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.²⁸ Moreover, the presence of estuarine habitat is directly related to Delta outflow. This means that if Delta outflows are reduced, X2²⁹ 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 under more normal conditions in tandem with the X2 estuarine objective. The State Water Board should acknowledge this in making its findings and

²⁶ Email announcement from Mary Lee Knecht, United States Bureau of Reclamation, “Reclamation adjusts operations from Friant Dam,” 1 April 2022 at 1:00 p.m. “San Joaquin River releases from Friant Dam will increase today from about 680 cubic-feet-per-second to 930 cfs. Releases will increase incrementally throughout the spring with sustained releases over the summer of more than 1,700 cfs depending on system conditions and downstream structural safety requirements. Restoration flows pursuant to the San Joaquin River Restoration Program will be reduced or ceased during these releases.”

²⁷ See footnote 3 above for quotations and URLs.

²⁸ Residence time is a measure of water stagnation, reflecting slow or no flow conditions. It is often measure in units of days.

²⁹ 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.

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.³⁰ To the extent that Delta smelt still survive in the Delta, *P. amurensis* will compete strongly with smelt for the same food sources.
- 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. 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”—often low-income people who fish for subsistence 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 we estimate in the tens of thousands. 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 two years, 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

³⁰ This clam also is a prodigious bio-accumulator 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, a species of diving duck) and bottom-grazing fish (like white sturgeon). Selenium more readily partitions in the water column to become bio-available at low flows and long residence times.

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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, suffocating 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.

Loss of salinity control, as discussed above, would fundamentally alter the aquatic chemistry of the Delta for several years. It is unknown how long the loss of control would last because it will take ample supplies of fresh water to push tidal salt waters out to San Francisco Bay and the Pacific Ocean and keep them long enough to enable Delta fresher-water ecosystems to recover.

3. Failure to condition approval of the TUCP on suspension of deliveries of water to senior water rights contractors is 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

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would fail to correct this injustice of irresponsible deliveries of water to senior water contractors 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. The Water Board must condition its temporary urgency change order to suspend such deliveries to prevent loss of salinity control in the Delta this year. Otherwise, the State Water Board will be complicit in a preventable self-inflicted water catastrophe, which will not, to say the least, be in the public interest.

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 day³¹ 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 April 1 and June 30, 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.

Conclusion

Restore the Delta has repeatedly stated our case for why the TUCPs since 2014 (including the one before us now dated March 18, 2022) are contrary to law for lack of due diligence by Petitioners, are not in the public interest, and have unreasonable impacts on fish and wildlife. To our protest in January 2022, we attached each of our previous protests from 2014 to 2021 to illustrate the pattern and practice of TUCP decisions, and incorporate them by reference into this protest.

³¹ 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 cubic feet in an acre-foot. $(750 \text{ cfs} \times (3600 \times 24))/43560 = 1,485 \text{ acre-feet per day.}$

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We urge you to condition the TUCP as we recommend under Item 4 to avoid unreasonable impacts to fish and wildlife; its basis as proposed lacks due diligence by Petitioners on behalf of equitable allocation of stored supplies in their reservoirs and fails to avoid salinity control failure of the Delta's hydraulic barrier. They would stubbornly fail to hew diligently to their public trust obligations to protect natural systems with flow releases and cold water pool management while favoring claims of senior Settlement and Exchange Contractors); and consequently continuing the practice and pattern of denying water to riverine and estuarine ecosystems in the Bay-Delta watershed during drought, all contrary to the public interest.

We appreciate the opportunity to comment on this proposed TUCP. Our contact information is below.



Barbara Barrigan-Parrilla
Executive Director
barbara@restorethedelta.org



Tim Strohane
Policy Analyst
tim@restorethedelta.org

Attachments:

1. Official Protest Form Accompanying this Protest Letter
2. Tables 1 through 6 Accompanying Protest Letter

cc: Dillon Delvo, Little Manila Rising
Matt Holmes, Little Manila Rising
Irene Calimlim, Greenlining the Hood
Jasmine Leek, Third City Coalition
Tama Brisbane, With Our Words, Inc.
Regina Chichizola, Save California Salmon
Tom Stokely, Save California Salmon
Chief Caleen Sisk, Winnemem Wintu Tribe
Gary Mulcahy, Government Liaison, Winnemem Wintu Tribe
Doug Obegi, Natural Resources Defense Council
Kate Poole, Natural Resources Defense Council
Brandon Dawson, Sierra Club California
Jonathan Rosenfield, San Francisco BayKeeper
John Herrick, South Delta Water Agency
Dante Nomellini, Central Delta Water Agency
Harry Black, City Manager, City of Stockton
Thomas Keeling, Freeman Firm
Stephen J. Welch, General Manager, Contra Costa Water District
Kelley Taber, Somach Simmons & Dunn
Osha Meserve Soluri Meserve

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Attachment 1: SWRCB Protest Petition Form

State of California
State Water Resources Control Board

DIVISION OF WATER RIGHTS

P.O. Box 2000, Sacramento, CA 95812-2000

Info: (916) 341-5300, FAX: (916) 341-5400, Web:
<http://www.waterboards.ca.gov/waterrights>

PROTEST- PETITION

This form may also be used for objections

**PETITION FOR TIME EXTENSION, CHANGE, TEMPORARY URGENT CHANGE
OR TRANSFER ON**

APPLICATION *See attached letter* **PERMIT** *See attached letter* **LICENSE** *See attached letter*
OF California Department of Water Resources and United States Bureau of Reclamation

I (We) have carefully read the notice (state name): *See attached letter.*

Address, email address and phone number of protestant or authorized agent:

See attached letter.

Attach supplemental sheets as needed. To simplify this form, all references herein are to protests and protestants although the form may be used to file comments on temporary urgent changes and transfers.

Protest based on ENVIRONMENTAL OR PUBLIC INTEREST CONSIDERATIONS

(Prior right protests should be completed in the section below):

- the proposed action will not be within the State Water Resources Control Board's jurisdiction
- not best serve the public interest X
- be contrary to law X
- have an adverse environmental impact X

State facts which support the foregoing allegations

See attached letter.

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Under what conditions may this protest be disregarded and dismissed? (Conditions should be of a nature that the petitioner can address and may include mitigation measures.)

See attached letter and attachments.

Protest based on INJURY TO PRIOR RIGHTS:

To the best of my (our) information and belief the proposed change or transfer will result in injury as follows: Members of our organization and community colleagues consider ourselves legal users of Delta water. See attached letter.

Protestant claims a right to the use of water from the source from which petitioner is diverting, or proposes to divert, which right is based on (identify type of right protestant claims, such as permit, license, pre-1914 appropriative or riparian right):: NA

List permit or license or statement of diversion and use numbers, which cover your use of water (if adjudicated right, list decree).

Where is your diversion point located? 1/4 of _____ 1/4 of Section _____, T____, R____,
_____ B&M

If new point of diversion is being requested, is your point of diversion downstream from petitioner's proposed point of diversion?

The extent of present and past use of water by protestant or his predecessors in interest is as follows:

- a. Source
- b. Approximate date first use made
- c. Amount used (list units)
- d. Diversion season
- e. Purpose(s) of use

Signed: See attached letter. Date: See attached letter.

All protests must be served on the petitioner. Provide the date served and method of service used: **April 6, 2022**, via email. No other proof of service required by State Water Resources Control Board.

Attachment 2

Tables 1 through 6 Accompanying Text of the Protest Letter

Table 1 California Snow Water Equivalents, End of December 2021 through End of March 2022 (Percent of Normal)				
As of Date	North	Central	South	Statewide
December 31, 2021	144%	158%	172%	157%
January 31, 2022	92%	92%	97%	93%
February 28, 2022	60%	68%	65%	64%
March 30, 2022	30%	43%	44%	39%

Source: California Data Exchange Center, interactive data on snow water equivalents, accessed 30 March 2022; Restore the Delta.

Table 2 Average Temperature Days in Northern Sierra Communities, December 30, 2021 to March 29, 2022			
Temperature Sensor at:	Elevation (feet)	Days at or above 32° F	Days at or above 40°F
Quincy	3,400	52	20
Blue Canyon	5,280	80	61
Chester	4,525	62	23

Source: Sensor TEMP (30) for Stations QCY, BLC, and CHS, California Data Exchange Center, accessed 30 March 2022; Restore the Delta.

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Table 3					
Storage Levels in Central Valley Project and State Water Project Reservoirs as of March 29, 2022					
As of March 29, 2022	Trinity (CVP)	Shasta (CVP)	Oroville	Folsom (CVP)	New Melones (CVP)
Storage (AF)	807,817	1,732,319	1,676,429	578,328	937,318
% of capacity	33%	38%	47%	59%	39%
% of average this date (normal)	45%	48%	67%	95%	63%
% of storage level last year this date	63%	72%	117%	161%	61%

Source: California Data Exchange Center, Daily Reservoir Storage Summary Report, generated 30 March 2022; Restore the Delta.

Table 4		
2021 and 2022 Central Valley Project Reservoir Storage as of March 29		
Reservoir	Storage 2021	Storage 2022
Trinity	1,290,157	807,817
Shasta	2,390,143	1,732,319
Folsom	358,155	578,328
New Melones	1,541,230	937,318
Total Storage Volume as of March 29	5,579,685	4,055,782

Source: California Data Exchange Center Reservoir Storage Summary Report, generated 30 March 2022; Restore the Delta.

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Table 5		
2020 and Expected 2021 Deliveries to State and Federal Senior Water Rights Contractors		
Senior Water Rights Contractor Group	2020	Expected 2021 (through September 2021)
San Joaquin River Exchange Contractors (CVP - San Joaquin/Mendota Pool)	554,679	393,337
San Joaquin River Exchange Contractors (CVP - Delta Mendota Canal)	131,531	108,701
Sacramento River Settlement Contractors (CVP)	1,528,579	1,087,913
Feather River Settlement Contractors (SWP)	NA	590,000
Total Deliveries	2,214,789	2,179,951
<p>Sources: Tables 22, 24, 25, 27, and 28 from Central Valley Project Operations, U.S. Bureau of Reclamation, accessed 19 March 2022 for delivery years 2020 and 2021 from https://www.usbr.gov/mp/cvo/deliv.html; California Department of Water Resources, "Summary of SWP Water Operations for the Week of 05/24/21 through 05/30/31," accessed online 31 May 2021; and DWR Compliance Report, "2021 Observed Data & Operations Outlook," accessed 31 March 2022 at https://www.waterboards.ca.gov/drought/tucp/docs/2021/20210714_dwremail_cond5.pdf; Restore the Delta.</p>		

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Table 6		
Major Sacramento River Settlement Contractors with Greater Than 50 TAF in 2021 CVP Water Deliveries (Acre-feet)		
Senior Water Rights Contractor	2020	2021 (through September 2021)
Anderson-Cottonwood Irrigation District	107,438	84,159
Glenn-Colusa Irrigation District	670,849	505,010
Natomas Mutual Water Company	80,594	74,450
Reclamation District #1004	50,907	25,336
Reclamation District #108	175,773	101,154
Sutter Mutual Water Company	173,577	124,747
Total CVP Senior Water Contractor Deliveries	1,259,138	914,856

Sources: Tables 22, 24, 25, 27, and 28 from Central Valley Project Operations, U.S. Bureau of Reclamation, accessed 19 March 2022 for delivery years 2020 and 2021 from <https://www.usbr.gov/mp/cvo/deliv.html>; Restore the Delta.