

Updating California Water Laws to Address Drought and Climate Change

February 3rd, 2022

- **Clifford Lee**, Former Deputy Attorney General, California Department of Justice
- **Jennifer Harder**, Professor of Law, Legal Practice, McGeorge School of Law
- **Richard Frank**, Professor of Environmental Practice, U.C. Davis School of Law and former Chief Deputy Attorney General, California Department of Justice
- **Barton Thompson**, Professor of Law, Stanford University
- **Tam Doduc**, Former Board Member, State Water Resources Control Board
- **Holly Doremus**, Professor of Law, U.C. Berkeley
- **Camille Pannu**, Former Director of the Water Justice Clinic, U.C. Davis and visiting Assistant Clinical Professor of Law, U.C. Irvine School of Law

Introduction

Summers are getting hotter. Rain and snowpack are disappearing, and water reserves are shrinking. This reduction of readily available, adequate water resources is creating a crisis that directly harms Californians and our environment.

We have developed a set of recommendations on how our water laws can be updated to address the impacts of drought and climate change. As you will see when you read the recommendations, this is not a “blow up the water rights boxes” approach. Rather it is a focused approach to updating existing laws, regulations, and funding.

It is also important to note that we recognize these recommendations can and should be carefully scrutinized and refined in the various public processes. Some are more detailed all the way to the proposed legislative language. Others are more generally described. Although we gave them the best consideration we could in the time available, there will undoubtedly be additional drafting and implementation issues that will need to be considered. Also, we recognize that

this is not a complete list of all needed upgrades. We hope that others will add their contributions to the process.

Background to Recommendations

Studies have found that one million Californians do not have safe drinking water. In addition, during the last drought, about 3,500 domestic wells went dry and about 2,600 households were negatively affected by the lack of available water. As climate change further affects California's water resources, the number of Californians who lack clean, accessible water will significantly increase. These problems are occurring almost entirely within California's economically disadvantaged, minority communities.

California's aquatic ecosystems are also in crisis. The state has experienced a long-term decline in freshwater native biodiversity. More than 100 freshwater-dependent species of plants and wildlife are listed for state and federal protections in California's freshwater ecosystems, and recovery is limited. Earlier assessments found that if this trend continued most California native fish populations would decline and some would likely be driven to extinction.

Since the last drought, these findings were updated to conclude that at least 18 species of native fish were "highly vulnerable to extinction" if that drought had continued and that such species "are at high risk of extinction during the next severe drought." This loss of biodiversity is not only detrimental to California's ecology, but also affects California's indigenous populations, fishing communities, and others who rely on healthy fisheries for income and recreation.

The State's water users are confronting increasingly scarce and unpredictable water supplies. Many urban communities are facing severe water shortages that have prompted new and unprecedented calls for extraordinary water conservation measures for California residents. The state's industrial and commercial sectors—critical to California's economy--could be compromised.

And farmers and ranchers, who provide much of the nation with its fruits, vegetables, and nut products, are facing severe water cutbacks that can contribute to farmlands being fallowed, orchards uprooted, and herds being reduced. Climate change suggests that these water challenges will constitute the "new normal" in California, rather than an aberration.

California's current system of water laws is ill-equipped to respond to modern water shortages. California's water laws need to be reassessed to address today's challenges, safeguard the health, safety, and livelihoods of California's 40 million residents, support its economy, and protect California's imperiled ecosystems.

This project was inspired by the Governor's Commission to Review California Water Rights Law established in 1977. Then-Governor Jerry Brown created the Commission in the midst of a previous drought to examine deficiencies in existing California water laws and develop key recommendations to address them, resulting in a 1978 final report. Like the Commission, this project focused primarily on reforms to California Water Rights Law and did not address other water issues such as assessing water supplies for new development. Almost a half-century later, the Planning and Conservation League has assembled a group of top California water law and policy experts who have pledged their time to help develop new recommendations, taking into account the unprecedented conditions facing 21st century California.

Tribal Justice

Tribal Justice is fundamental to water justice. Both federally recognized and non-recognized tribes have had cultural, social, and nutritional relationships with rivers from time immemorial. Yet, their rights have rarely been recognized. They also frequently have been excluded from decisions that drastically affect the very waterways they successfully stewarded for thousands of years.

Unfortunately, tribal experts whose time is already totally committed to other critical issues were not available to assist in this effort. It would be inappropriate for us, as non-tribal people, to attempt to speak for them.

Recommendations

1. State Water Resources Control Board and Department of Fish and Wildlife Funding

Recommendation 1.

The State Water Resources Control Board and the Department of Fish and Wildlife need to be provided sufficient funding to carry out their existing and new responsibilities including verifying water rights, overseeing the real-time monitoring systems, and updating the Bay-Delta Water Quality Control Plan.

2. Funding for Underrepresented Groups

State Water Resources Control Board (hereafter “State Board”) proceedings are lengthy and complex. Underrepresented groups including traditionally underserved communities and Tribes almost never have the resources to participate in these proceedings on an equal basis.

In 1985 the Legislature previously recognized a similar need in proceedings before the California Public Utilities Commission (CPUC) by establishing a program of intervenor compensation that is part of the CPUC’s authority (Public Utilities Code Sections 1801 - 1812, effective January 1, 1985, with subsequent modifications made by the Legislature in 1992, 1993, and 2004.)

Generally speaking, if the CPUC finds that a qualified non-profit, non-governmental organization contributed significantly to its decision, it must reimburse the non-profit, non-governmental organization for its reasonable and necessary costs of participation. Compensation is generally granted after the proceeding or a phase of the proceeding is concluded. Awards of compensation are paid by CPUC-regulated utilities from monies collected from utility ratepayers.

The Clean-Up and Abatement Account authorized by sections 13440 to 13443 of the Water Code is one possible source of funding for this compensation. The Legislature and the Administration should explore all possible alternative funding sources.

Recommendation 2.

Amend California Water Code to authorize non-profit, non-governmental organizations and Tribes to be compensated for their reasonable and necessary expenses in proceedings before the State Water Resources Control Board or Regional Water Quality Control Boards to clean up waste or abate the effects of waste on waters of the State or to address an urgent drinking water need where such participation contributes significantly to the Board's decision.

The Legislature and the Administration should also explore other potential funding sources that could be used to compensate non-profit, non-governmental organizations and Tribes for their reasonable and necessary costs of participation in other proceedings of the State Water Resources Control Board (e.g., water rights proceedings) where that participation contributes significantly to the Board's decision.

3. SWRCB and Regional Water Board Environmental Justice Experience

The Office of Environmental Health Hazard Assessment's (OEHHA's) CalEnviroScreen mapping tool identifies communities that are disproportionately impacted by a combination of environmental stressors and socioeconomic disadvantages. The tool's 2021 update reveals that the top 10% percent of least-polluted neighborhoods are 67% white, while the top 10% percent of most-polluted neighborhoods are 89% people of color and Indigenous people¹. State of California workforce census data from 2020 show that 43% of the state's population is white, yet about 56% of the State Boards' workforce and 68% of the State Boards' management is white.

Contaminated drinking water sources disproportionately burden low-income communities and Black, Indigenous, and people of color communities throughout California, further exacerbating persistent inequities, which can be seen in data collected by the Human Right to Water Framework and Data Tool 1.0 (released January 2021).

Recommendation 3.

¹ *Analysis of Race/Ethnicity and CalEnviroScreen 4.0 Scores Office of Environmental Health Hazard Assessment California Environmental Protection Agency (October 2021)*
<https://oehha.ca.gov/media/downloads/calenviroscreen/document/calenviroscreen40raceanalysisf2021.pdf>

Require that at least one member of the State Water Resources Control Board and each of the Regional Water Quality Control Boards have experience in environmental justice. This would not add an additional member to the SWRCB or the Regional Boards. Rather it would be modeled on existing wording in Water Code Division I, Article 3, Section 175, “One of the above-appointed persons, in addition to having the specified qualifications, shall be qualified in the field of water supply and water quality relating to irrigated agriculture.”

The recommended updating to that Section would be to add, “One of the above-appointed persons, in addition to having the specified qualifications, shall be qualified in the field of water supply or water quality relating to environmental justice.” Parallel wording would be added for Regional Board member qualifications.

4. Mitigation for Impacts of Groundwater Pumping on Domestic Wells

Background

According to a 2020 study in California, around 1.5 million residents rely on domestic wells for drinking water, around one-third of whom live in the Central Valley (CV). This study reported that “During the 2012–2016 drought, 2027 private domestic drinking water wells were reported dry in California's CV; because reporting was voluntary, actual well failure counts are possibly greater.”²

The Sustainable Groundwater Management Act was intended to address overpumping, halt chronic water-level declines and bring long-depleted aquifers into balance. However, the law gives pumpers until the year 2040 to fully comply.

In 2012, California passed Assembly Bill 685 to recognize the human right to water. California now has a comprehensive law guaranteeing the right to safe, affordable water without discrimination, prioritizing water for personal and domestic use, and delineating the responsibilities of public officials at the state level. AB 685 specifically charges relevant California agencies with the fulfillment

² R A Pauloo, A Escriva-Bou, H Dahlke, A Fencl, H Guillon, and G E Fogg “Domestic well vulnerability to drought duration and unsustainable groundwater management in California's Central Valley,” Environmental Research Letters, (March 18 2020) <https://iopscience.iop.org/article/10.1088/1748-9326/ab6f10#:~:text=Domestic%20well%20vulnerability,18%20March%202020>

of the law's mandate by considering the human right to water in policies, regulations, and grant criteria.

The Department of Water Resources is charged with the responsibility to review groundwater sustainability plans to identify any deficiencies. In December 2021, the Department of Water Resources notified agencies in six groundwater areas of the San Joaquin Valley that their plans are incomplete.

"The standard in the law is 'significant and unreasonable' effects on their groundwater users," said Paul Gosselin, deputy director of the department's sustainable groundwater management office. "I think if you have your water supply shut off, that's pretty significant."

Recommendation 4.

4a. The groundwater sustainability agency or agencies that cover the basin shall promptly determine after notice and opportunity for hearing whether groundwater extractions within the basin cause or will likely cause adverse impacts to the use of water from domestic wells within the basin. Such impacts shall include but are not limited to the lowering of the groundwater levels that prevent the use of water from domestic wells. If the agency or agencies determine such impacts occur or will likely occur, then the agency or agencies shall mitigate such impacts using methods that include but are not limited to: deepening existing domestic wells, repairing existing wells damaged by the groundwater extraction, connecting users of domestic wells to existing water supply systems and providing alternative water supplies.

4b. The agency or agencies shall take steps to ensure that implementation of measures to mitigate adverse impacts shall not subject owners of domestic wells or users of water from domestic wells to unreasonable financial burdens or expenses. Such steps shall include but are not limited to compensating owners and users for the increased energy costs associated with deeper groundwater pumping and increased costs to households associated with the delivery of water from existing water supply systems or other alternative water supplies.

5. Updating Statutory Adjudications

Existing Law

Upon receiving a petition from a water right claimant to waters of a stream system, the State Board may determine, subject to judicial approval, the rights to water of a stream system. This proceeding is known as a statutory adjudication. (Wat. Code, §§ 2500-2900.)³ The State Board commences the proceeding by judging whether an adjudication would serve the public interest and necessity. (Wat. Code, § 2525.)

In making its decision, the State Board considers among other factors: (1) the degree to which the waters of the stream system are fully used; (2) the existence of uncertainty as to the relative priority of rights to the use of waters of the stream system; (3) the unsuitability of less comprehensive measures, such as private litigation or agreements, to achieve certainty of rights to the use of waters of the stream system; and (4) the need for a system-wide decree or watermaster service, or both, to assure fair and efficient allocation of the waters of the stream system. (Cal. Code Regs., tit. 23, § 946.) Public trust considerations may also be included as part of a statutory adjudication.⁴ Throughout the proceeding, claimants to the water of a stream system carry the burden of proving their respective water right claims. (Wat. Code, §§ 2528, 2575, subd. (f).)

If the State Board finds that an adjudication would further the public interest and necessity, then the State Board investigates the water right claims and, after notice and opportunity for hearing, issues an order determining and establishing the rights to the water of the stream system. (Wat. Code, § 2700.) The State Board completes the process by filing the order with the superior court in the county where at least some of the stream system is located. (Wat. Code, § 2750.) Any dissatisfied party may contest the order in a superior court. (Wat. Code, § 2757.) After holding a hearing, the court then considers any objections (deemed “exceptions”) and adopts a decree “determining the rights of all persons involved in the proceeding.” (Wat. Code, § 2768.)

³ The State Board may exempt persons holding rights to minor quantities of water that “would have no material effect on the rights of other claimants” from the adjudication proceeding. (Wat. Code, § 2502.) Thus, a stream adjudication may not include all the stream system’s water right holders.

⁴ State Water Resources Control Board, Resolution No. 2020-0040 (October 20, 2020) [Fresno River Watershed] at p. 3.

Existing Practice

The State Board has completed twenty-nine statutory adjudications under its Water Code authority.⁵ Currently, a proceeding to adjudicate rights to the Fresno River is ongoing. State Board records disclose that the bulk of the completed adjudications have involved relatively small watersheds.⁶ Major stream systems such as the Sacramento or San Joaquin rivers have not been the subject of statutory adjudications.

Other western states have taken a more aggressive approach in using state agency-managed adjudications. However, efforts to adjudicate major watersheds have resulted in decades-long proceedings, many of which remain ongoing. For example, Oregon has conducted nearly 100 stream adjudications that have produced final court decrees.⁷ Oregon's adjudication efforts on the Klamath River, one of Oregon's largest watersheds, have been less successful. Commenced in 1976, the Oregon adjudication did not produce a final order of determination until 2013 and a court has yet to confirm the river's water rights in a final decree.⁸

Washington has limited its adjudication efforts to smaller stream systems, except for the state's adjudication of the Yakima River Basin. Filed in 1977, the Yakima Basin adjudication produced a final decree covering 2,300 water rights on May 9, 2019.⁹ In Arizona, adjudication efforts have centered around the Gila River and the Little Colorado River. Arizona conducts adjudications directly through its superior courts with assistance provided by special masters. Water right claimants

⁵ *Water Rights Judgments/Determinations*, California State Water Resources Control Board, https://www.waterboards.ca.gov/waterrights/board_decisions/adopted_orders/judgments/

⁶ *Water Rights Determination*, California State Water Resources Control Board, https://www.waterboards.ca.gov/waterrights/board_decisions/adopted_orders/judgments/docs/judgments_map.pdf

⁷ *Decrees*, State of Oregon, <https://www.oregon.gov/owrd/programs/waterrights/decrees/pages/default.aspx>

⁸ *Klamath River Basin Adjudication*, State of Oregon, <https://www.oregon.gov/owrd/programs/waterrights/adjudications/klamathriverbasinadj/pages/default.aspx>

⁹ *State of Washington Department of Ecology v. Acquavella, et al.*, Yakima County Superior Court Case No. 77-2-01484-5, Final Decree (May 9, 2019); <https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-rights/Adjudications/Ecology-v-Acquavella>

filed actions to adjudicate these rivers in 1978. There are over 39,000 parties in the Gila River adjudication and over 6,000 parties in the Little Colorado River adjudication. Like the Klamath River adjudication, these adjudications remain unfinished.¹⁰

In sum, existing practice in California and other western states indicates that stream adjudications may provide a feasible pathway to manage water rights in smaller stream systems but can become unwieldy when applied to larger watersheds.

The 1978 Final Report of the Governor’s Commission to Review California Water Rights Law and Statutory Adjudications.

Notwithstanding the limitations of statutory adjudications, the adjudication approach retains certain policy benefits. First, an adjudication’s stream-wide approach when compared to piecemeal litigation allows for a more comprehensive and binding determination of rights to a stream system. Second, the statutory adjudication process has embedded mechanisms that encourage compromise and agreement, such as the staff investigation process. (Wat. Code, §§ 2550-2555.) Third, the California Supreme Court has held that an adjudication’s comprehensive scope allows the State Board to determine a stream system’s instream needs under the public trust doctrine in addition to the system’s off-stream diversion rights. This authority "may include reconsideration of rights previously granted in that system." (*National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419, 449.)

In its 1978 Final Report, the Governor’s Commission to Review California Water Rights Law recommended that “greater access be given to and wider use be made of an improved statutory adjudication procedure.”¹¹ The Commission’s most prominent recommendations on this subject were that 1) the State Board be allowed to initiate a statutory adjudication on its own motion, and 2) groundwater which is interconnected with a stream system such that the use of the groundwater substantially affects the use of surface water be included in the

¹⁰ *Adjudications Overview*. Arizona Department of Water Resources. <https://new.azwater.gov/adjudications>; *Gila River and Little Colorado River General Stream Adjudications*. Arizona Department of Water Resources. <https://new.azwater.gov/adjudications/gila-river-and-little-colorado-river-general-stream-adjudications>

¹¹ Governor’s Commission to Review California Water Rights Law, Final Report (December 1978) at p. 27.

adjudication where essential to the fair and effective determination of the rights to the stream.¹² The authors of this report have reviewed the Commission’s Final Report and agree with its recommendations.

Allowing the State Board to initiate and conduct a statutory adjudication would provide the State Board with powers similar to those held by the Oregon Water Resources Department. (Or. Rev. Stat. § 539.021 (2019).) Authorizing the State Board to include interconnected groundwater within stream system adjudications would expand the interconnected groundwater principle authorized by the California Legislature for the Scott River to similarly situated watersheds in the rest of the state. (Wat. Code, § 2500.5.)

Recommendation 5.

5a. The Water Code be amended to add the following, “The Board may, upon its own motion, enter an order initiating proceedings under this chapter for the determination of the rights of various claimants to the water of a stream, if after notice and opportunity for hearing, it finds that the public interest and necessity will be served by a determination of the rights involved.”

5b. Section 2500 of the Water Code be amended to read, “As used in this chapter, “stream system” includes a stream, lake, or other body of water, surface tributaries and contributory sources, interconnected groundwater supplies the inclusion of which are essential to a fair and effective determination of the rights to other water of the stream system, and subterranean streams flowing through known and definite channels, but does not include other underground water supplies.”

6. Improving Surface Water Rights Verification

Background

Unlike other western states, California has a patchwork system for allocating surface water that divides the right to water between statutory water rights issued and regulated by the State Board or its predecessors under the Water Commission Act of 1913 and water rights recognized prior to act’s 1914 effective date. With some exceptions, surface water rights recognized prior to 1914 are

¹² *Id.* at p. 29.

limited to riparian rights, rights derived from ownership of land adjacent to a watercourse, and pre-1914 appropriative rights, rights unrelated to land ownership secured through application of the Gold Rush mining customs of water diversion and delivery to beneficial use.¹³

In times of shortage, the priority principle of first in time, first in right generally determines the allocation of pre-1914 and post-1914 appropriative rights. In contrast, riparians mutually share shortages with other riparians. (*Millview County Water District v. State Water Resources Control Board*, 229 Cal.App.4th 879, 888-889 (2014).) The priority of riparian rights over other rights depends upon the date of the land patent for the riparian land. (*McKinley Brothers v. McCauley*, 215 Cal. 229, 230-231 (1922).) Neither holders of riparian rights nor pre-1914 appropriative rights require a permit or license from the State Board.

Due to these historical circumstances, riparian rights and pre-1914 appropriative rights typically hold a senior priority to post-1914 appropriative rights and are entitled to satisfaction in times of shortage over the claims of post-1914 rights. According to one study, self-reported riparian and pre-1914 water claims account for the diversion of over 2.3 million acre-feet of water a year from the Sacramento-San Joaquin Delta watershed.¹⁴ Because the State Board does not issue permits or licenses for riparian and pre-1914 appropriative rights, the extent and scope of these rights are poorly understood. Reforms allowing the State Board to verify these claimed water rights could make water available for more junior water rights holders and for fishery and other beneficial uses of water.

The intent of the proposed Water Code amendment is to provide the State Board with more flexible tools to determine whether senior water right claimants who assert riparian or pre-1914 appropriative water right claims have defensible grounds for their diversion and use of water. Presently, self-reported data are the State Board's primary information source about the extent and scope of these

¹³ California law also recognizes pueblo rights, rights unique to California law, that are the "paramount right of an American city as successor of a Spanish or Mexican pueblo (municipality) to the use of water naturally occurring within the old pueblo limits for the use of the inhabitants of the city." Hutchins, *The California Law of Water Rights* (1956) at p. 256.

¹⁴ Public Policy Institute of California, *Allocating California's Water: Directions for Reform* (November 2015) at p. 8, n. 18.

senior water rights.¹⁵ According to the State Board, this self-reported “[d]iversion data contained within the annual reports forms the basis for estimates of water demand used in the [State Board’s] Water Unavailability Methodology.”¹⁶ In times of shortage, the State Board uses these water demand estimates, coupled with supply estimates, to determine the extent that the State Board may curtail junior water right users. To the extent that these demand data inflate the amount of water that senior water right claimants have a right to divert, then less water is available for junior water right holders and for fishery and other beneficial uses of water.

The State Board presently lacks the tools for promptly investigating and determining whether senior water right claims are inflated or represent the amounts that the claimants have the right to divert and use. Section 1051 of the Water Code grants the State Board the general authority to investigate stream systems but does not explicitly grant the power to verify the water rights of users claiming rights outside of the Water Commission Act. (Wat. Code, § 1051.) Sections 2500 through 2900 of the Water Code allow the State Board to “determine...all rights to water of a stream system whether based upon appropriation, riparian rights, or other basis of rights,” proceedings commonly known as statutory adjudications. (Wat. Code, § 2501.) However, these sections do not allow the State Board to initiate an adjudication of rights to a stream system. Only claimants to water from the stream may initiate a statutory adjudication. (Wat. Code, § 2525.) Furthermore, the sections do not allow the State Board to determine the rights of individual diverters or a narrow set of diverters. Finally, a stream adjudication is a costly and time-consuming process. In the case of *In re Waters of Long Valley Creek Stream System*, an adjudication of a small watershed in Lassen, Sierra and Plumas counties, judicial resolution of the adjudication petition did not occur until 13 years after the filing of the petition. (*In re Waters of Long Valley Creek Stream System*, 25 Cal.3d 339, 345 (1979).)

¹⁵ With some exceptions, water users who divert under riparian and pre-1914 appropriative rights must file with the State Board statements of water diversions and use and supplemental statements of water diversions and use that include monthly records of water diversions disclosing the prior year’s diversion and use of water. (Wat. Code, §§ 5101-5104.)

¹⁶ State Water Resources Control Board, *Water Unavailability Methodology for the Delta Watershed* (July 23, 2021) at p. 33.

Recommendation 6.

The proposed Water Code amendment would address this gap in State Board authority by allowing the State Board selectively to investigate and determine whether a water right claimant, diverter, or user is diverting or using water under a defensible claim of right. Specifically, the amendment would (1) allow the State Board to investigate individual water right claimants to verify their basis of right, (2) to require information from the claimants relevant to the investigation, (3) to rule upon the water right claim after notice and opportunity for hearing, (4) to impose the burden upon the water right claimant to prove the elements of the claimant's right, and (5) to clarify that any determination of forfeiture of an appropriative right held in these proceedings would not require a showing of a competing claim or a clash of rights from other water rights holders as has been required by recent court decisions. See Appendix: Supplemental Information Regarding Improving Surface Water Rights Verification.

7. Interim Relief Orders

Background

The State Board is responsible for establishing and maintaining a stable system of water rights in California to best develop, conserve, and utilize in the public interest the water resources of the State while protecting vested rights, water quality, and the public trust. Effective water rights administration depends, in part, on adequate and timely enforcement.

The State Board and the courts have concurrent jurisdiction over actions to enforce water right law, including proceedings brought in response to violations of water right permits and licenses, violations of the public trust doctrine, or waste or unreasonable use of water. But only the courts can take immediate relief action, typically in the form of a temporary restraining order or a preliminary injunction, without opportunity for a full evidentiary hearing.

In addition, unlike the State Board, the courts are not required to comply with the California Environmental Quality Act (CEQA) before taking action.

In some cases, it is necessary to take prompt action to prevent irreparable harm to water right holders or instream uses. Without the capacity to impose interim relief, activities that damage the environment can continue during the length of

an adjudicative proceeding, without any requirement that the violator take steps to avoid or reduce the damage. The ability to provide for interim relief pending the completion of an evidentiary hearing would allow urgent decisions to be made in a timely manner, eliminate the need for duplicative proceedings in court, and better protect the state's water resources.

Existing Law

Under the public trust doctrine and the reasonableness requirement of article X, section 2 of the California Constitution, the State Board has the authority to require changes in diversions that are unreasonably affecting fish or other public trust uses or are wasting or unreasonably using water. The State Board also may take enforcement action against unauthorized diversions or violations of water right permits and licenses. The Board, however, often is unable to take swift action for several reasons. First, the Board can only impose requirements after providing an opportunity for an evidentiary hearing. Second, the Board must comply with CEQA or rely on an exemption from CEQA before taking action.

The Water Code does not include any specific authority or administrative procedures to provide for interim relief during the pendency of an enforcement action. On the contrary, the Water Code establishes procedural requirements with particular time frames that must be met before the State Board can take final action. Pursuant to the Water Code, the Board has the authority to issue a cease and desist order (CDO) for the violation, or threatened violation, of:

(i) the prohibition against the unauthorized diversion or use of water; (ii) a term or condition of a permit, license, certification, or registration, or (iii) certain decisions or orders of the Board. (Wat. Code, § 1831, subd. (d).) By statute, the Board must provide notice and an opportunity for a hearing before issuing a CDO. (Wat. Code, § 1831, subd. (c).) The party served has 20 days to request a hearing after receiving a notice of the proposed enforcement action. (Id., § 1834, subd. (a).) Thus, at a minimum, the Board may have to wait 20 days to take final action even if the party served ultimately does not request a hearing.

In fact, the limitations on the State Board's ability to require interim relief have long been noted. For example, in 1989, Assemblyman Costa introduced legislation, AB 1846, to require that all cases involving the public trust or waste and unreasonable use be decided by the Board. Opponents of the bill cited the

absence of specific procedures for interim relief as one of the reasons why the availability of Board review was inadequate. In 1992, the Board sponsored SB 1900 (McCorquodale) providing the Board with the authority to grant interim relief on water rights proceedings. Unfortunately, the bill was not enacted. In 2009, Senate Bill 681 also attempted to enact a provision for interim relief, but it too was not passed.

In addition, the State Board must comply with CEQA or rely on an exemption from CEQA before taking final action. Parties routinely allege that environmental documentation such as an environmental impact report (EIR) is required, even though the action being considered by the Board would help protect the environment and allegations of environmental impacts are remote or speculative. For example, although in some cases the Board has proceeded in reliance on the CEQA categorical exemption for enforcement, the applicability of the enforcement exemption is often subject to dispute by the parties. Other CEQA exemptions, such as the exemptions for the protection of the environment and natural resources, are also likely to be disputed. Preparation of an EIR, when necessary, is a lengthy process that can take years. Thus, absent an exemption, compliance with CEQA limits the Board's ability to act quickly in response to an urgent matter.

Moreover, regardless of any statutory or constitutional requirements, adjudicative proceedings are often protracted. Due to the complexity of water rights issues and the adversarial nature of enforcement proceedings, an adjudicative proceeding can be quite lengthy and it can take months or years before a final decision is issued. Parties alleged to be misusing water often invoke procedural requirements in an effort to delay or obstruct action by the State Board. While the Board can take steps to avoid unnecessary delays during the adjudicative proceeding, it must take care to afford the parties adequate due process throughout the proceeding.

Of course, any legislation providing interim relief authority should include procedures to assure due process. The expedited procedures would be similar to those followed by the courts, and any interim relief should be just that—interim—pending the completion of water right proceedings. Similarly, interim relief legislation should include procedures to avoid adverse environmental impacts on

an interim basis pending completion of those water right proceedings and any EIR required as part of those proceedings.

Interim relief authority would not avoid the need for the State Board to conduct complex water rights proceedings. But the ability to provide prompt, interim relief would help to prevent damage to public trust resources or loss of water resources in the Delta or other watersheds during the often lengthy periods necessary to complete those proceedings.

Recommendation 7.

7a. Provide the State Water Resources Control Board with the authority to issue interim relief orders in appropriate circumstances, after notice and opportunity for hearing, in proceedings to enforce the following

- (1) Section 2 of Article X of the California Constitution.
- (2) The public trust doctrine.
- (3) Water quality objectives adopted pursuant to subdivision (b) of Section 13142, Section 13170, or Section 13241.
- (4) The requirements set forth in permits and licenses issued pursuant to Part 2 (commencing with Section 1200), including actions that invoke the Board's reserved jurisdiction.
- (5) Division 1 (commencing with Section 100), this division, or Article 7 (commencing with Section 13550) of Chapter 7 of Division 7.
- (6) Section 5937 of the Fish and Game Code.

7b. Except as otherwise provided, any interim relief order issued by the Board should be exempt from the requirements of Division 13 (commencing with Section 21000) of the Public Resources Code if the Board makes either of the following findings:

- (1) Providing interim relief will not have a significant adverse effect on the environment.
- (2) Providing interim relief will result in environmental benefits, or avoid adverse impacts on the environment which may result in the absence of interim relief. If

the Board makes a finding pursuant to this paragraph, the Board shall also adopt the finding or findings specified in Section 21081 of the Public Resources Code.

Any findings of the Board pursuant to this section shall be supported by substantial evidence in the record. If the Board makes the findings specified in paragraph (1) of subdivision (a) of Section 21081 of the Public Resources Code, or if the Board finds that providing interim relief will not have a significant adverse effect on the environment because any potentially significant adverse effect will be avoided as a result of mitigation incorporated in the Board's order, the Board shall adopt a reporting and monitoring program in accordance with Section 21081.6 of the Public Resources Code.

8. Real-Time Water Diversion and Use Monitoring

Background

California lacks the ability on a real-time basis to determine who is diverting water from surface water sources, when such diversions are occurring, and in what amounts. This deficiency hampers the State's management of its surface water, particularly in times of drought.

Except for riparian water rights, where shortages are shared, the appropriative water right rule of priority generally determines surface water allocation in times of shortage.¹⁷ This rule grants senior diverters priority to divert their allocated amounts under their water rights before junior diverters may take their share. If senior diverters take more than their allocated share of water or take water outside their authorized season of diversion, then the resulting reduction in flow may force junior diverters to reduce their diversions earlier than the priority rule would otherwise require. Moreover, diversions by any water diverter outside of the scope of the diverter's water right may reduce flow required to protect fish and wildlife beneficial uses or to provide for salinity control, for example, in the Sacramento-San Joaquin Delta.

Accurate, real-time data regarding the diversion of surface water is therefore crucial for the effective allocation of surface water under California's water rights

¹⁷ One exception is that a downstream senior water right holder cannot demand a junior upstream reservoir operator to release flow for the benefit of the downstream user at times when the stream's natural flow would not make such flow available. (*Lindbloom v. Round Valley Water Co.* (1918) 178 Cal. 450, 457; *State Water Resources Control Board Cases* (2006) 136 Cal.App.4th 674, 738, 743.)

system. Increased variability in hydrology resulting from climate change heightens the need for this data. In 2021, state forecasters had anticipated 2.3 million acre-feet of runoff from the Northern Sierra mountains. Due to absorption by drought-impacted soils and increased evaporation caused by higher-than-normal spring temperatures, only 1.6 million acre-feet arrived.¹⁸ State water regulators had to render on-the-spot determinations of water availability for diversions and use based upon this unanticipated and unplanned reduction in streamflow.

Existing law only mandates that surface water diverters report their diversion and use data annually and only for the prior year. (Wat. Code, §§ 1840, subd. (c), 5101.) In determining the water demand component of their water availability analysis state regulators therefore only possess water diversion data from prior water years. In making allocation decisions in times of drought, state regulators have no reliable way in real-time to calculate who is diverting water, during what times, and in what quantities and therefore have no way to determine actual, real-time water demand at the time when water shortage allocation decisions need to be made. We, therefore, recommend the following steps to implement a real-time monitoring and reporting system for surface water diversions and use.

Recommendation 8.

8a. Based upon input from the State Water Resources Control Board, the Legislature should fully fund the Board’s monitoring and reporting efforts mandated by Senate Bill 88 of 2015.

8b. The Legislature should mandate and fully fund a Board program to establish at least two pilot projects in separate watersheds to assist in determining the feasibility of requiring a real-time monitoring and reporting system for the diversions and use of surface water.

8c. No later than five years from the effective date of the legislation, the Board should prepare a report that assesses the feasibility of requiring a real-time monitoring and reporting system for the diversions and use of surface water that incorporates the results of the pilot projects and includes but is not limited to recommendations regarding the size and type of the diversions and use that should be subject to a real-time system and the watersheds that should be

¹⁸ Paul Rogers, *Where Did Sierra Snow Go this Spring?*, The Mercury News (June 23, 2021). <https://www.mercurynews.com/2021/06/23/where-did-sierra-snow-go-this-spring-not-into-california-rivers-and-water-supplies/>

required to adopt such a system. Upon completion, the Board should make the report publicly accessible on the Board’s website.

9. Timely Completion and Implementation of the Bay-Delta Water Quality Control Plan Update

Background

Existing law sets timing requirements for the review and revision of water quality control plans. Under the Porter-Cologne Water Quality Control Act, the nine individual regional water quality control boards develop and adopt regional water quality control plans for their respective regional basins. (Wat. Code, § 13240.) The regional boards must “establish such water quality objectives in water quality control plans as in its judgment will ensure the reasonable protection of beneficial uses and the prevention of nuisances.” (Wat. Code, § 13241.) These plans “shall be *periodically reviewed* and may be revised.” (Wat. Code, § 13240, emphasis added.)

However, section 13170 grants the State Board the authority to “adopt water quality control plans in accordance with the provisions of Sections 13240 to 13244, inclusive.” (Wat. Code, § 13170.) These State Board plans “supersede any regional water quality control plans for the same waters to the extent of any conflict.” (*Id.*) Since 1978, the State Board has invoked its displacing power under section 13170 and adopted water quality control plans for the Bay-Delta watershed that have superseded the Central Valley and San Francisco Bay regional boards’ planning authority in this area where the plans conflict.¹⁹

The Federal Clean Water Act provides further guidance regarding the scheduling of updates for what the act calls “water quality standards.” California law characterizes these standards as “water quality objectives.” (*San Joaquin River Exchange Contractors Water Authority v. State Water Resources Control Board* (2010) 183 Cal. App. 4th 1110, 1115.) Section 303(c)(1) of the Clean Water Act mandates that “The Governor of a State or the State water pollution control agency of such State shall from time to time (*but at least once each three-year period beginning with the date of enactment of the Federal Water Pollution Control Act Amendments of 1972*) hold public hearings for the purpose of

¹⁹ California State Water Resources Control Board, *Water Quality Control Plan for the Sacramento-San Joaquin Delta and Suisun Marsh* (1978) (1978 Delta Plan).

reviewing applicable water quality standards and, as appropriate, modifying and adopting standards.” (33 U.S.C. § 1313 (c)(1), emphasis added.)

Under these authorities, the State Board adopted water quality control plans in 1978 and in 1995 for the Sacramento-San Joaquin Delta watershed setting flow objectives to protect fishery beneficial uses.²⁰ In 2000, the State Board implemented the fishery flow objectives contained in the 1995 Bay-Delta Plan through a water right proceeding resulting in Revised Water Right Decision 1641.²¹ The State Board has not comprehensively revised these objectives since 1995.

In 2006, the State Board revised its water quality control plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, but “no new water quality objectives” were “adopted in the 2006 Plan.”²² In furtherance of its periodic and triennial review duties, the State Board in 2009 adopted by resolution a staff report that recommended further State Board review of the 1995 fishery flow objectives, including consideration of new Delta outflow objectives, export/inflow objectives, and reverse flow objectives at Old and Middle rivers. The 2009 resolution directed the staff to “develop recommendations for any needed changes to the Bay-Delta Plan...[and] prepare draft Plan amendments or a draft revised Plan for consideration by the State Board.”²³

After conducting numerous public meetings and workshops and releasing multiple technical reports for public comment, the State Board in 2018 issued a document entitled “July 2018 Framework for the Sacramento/Delta Update to the Bay-Delta Plan.”²⁴ The Framework Document recognized the need for “urgent efforts in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta) to address prolonged and precipitous declines of native aquatic species and the ecosystem they depend upon.”²⁵ The document then described the two separate processes “that are critically important to the health and survival of the

²⁰ 1978 Delta Plan; California State Water Resources Control Board, *Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary* (1995) (1995 Bay-Delta Plan).

²¹ California State Water Resources Control Board, *Revised Water Right Decision* 1641 (2000).

²² California State Water Resources Control Board, *Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, Plan Amendment Report*, App. 1 (2006) at p. 15.

²³ California State Water Resources Control Board, *Resolution No. 2009-0065* (August 4, 2009) at p.2.

²⁴ California State Water Resources Control Board, *July 2018 Framework for the Sacramento/Delta Update to the Bay-Delta Plan* (July 2018) (Framework Document).

²⁵ *Id.* at p. 1.

Bay-Delta ecosystem.”²⁶ The first is the update to the water quality objectives for the Lower San Joaquin River and the Southern Delta (San Joaquin River/Southern Delta update). The second is the update to the objectives for the Sacramento River and its tributaries, Delta eastside tributaries, Delta outflows, and interior Delta flows (Sacramento River/Delta update).²⁷

On December 12, 2018, the State Board adopted the San Joaquin River/Southern Delta update, materially revising the fishery flow objectives for Lower San Joaquin River and imposing new agricultural salinity objectives for the Southern Delta.²⁸ In 2019, the Newsom administration moved forward with talks among Bay-Delta stakeholders aimed at voluntary stakeholder agreements that proponents argued would offer legally and scientifically defensible alternatives to the new objectives. After almost three years of talks, the Newsom administration, in an October 20, 2021 letter, acknowledged the talks had not produced defensible objectives for the San Joaquin River and its tributaries and directed the State Board to “resume all activities necessary to implement the flow objectives established by the 2018 Bay-Delta Plan for the Lower San Joaquin River and its three major tributaries, the Stanislaus, Tuolumne, and Merced rivers.”²⁹

On November 17, 2021, the State Board released a notice that identified an informational item to be heard at the State Board’s December 8, 2021 meeting regarding the Bay-Delta planning process. According to the notice, the State Board will “continue efforts to complete the Sacramento River/Delta updates to the Bay-Delta Plan, including the release of a draft environmental document for public comment.” During the State Board’s consideration of the December 8 informational item Board staff expressed a preference for implementing the Bay-Delta Plan updates through Board regulations rather than through amendments to water right permits and licenses. Subject to State Board approval of this approach, Board staff proposed final adoption of the California Environmental Quality Act document on regulations implementing the San Joaquin River/Southern Delta update by Spring 2023 and the submittal of final regulations to the Office of Administrative Law by Summer 2023. Staff further projected State

²⁶ *Id.*

²⁷ *Id.*

²⁸ California State Water Resources Control Board, *Resolution No. 2018-0059* (December 12, 2018.)

²⁹ *Letter of October 20, 2021, from California Environmental Protection Agency Secretary Jared Blumenthal and California Natural Resources Agency Secretary Wade Crowfoot to Water District Leaders* at p. 2.

Board adoption of the final Sacramento River/Delta Plan update by late Fall 2023. The staff timeline included an opportunity for stakeholders to present a final voluntary agreement to the State Board for inclusion in the plan update.³⁰

Over twenty-six years have passed since the State of California last revised the fishery flow objectives in the 1995 Bay-Delta Plan. We concur with the State Board's recognition of the need for "urgent efforts in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary... to address prolonged and precipitous declines of native aquatic species and the ecosystem they depend upon."³¹ According to fishery biologist Peter Moyle, "[o]f our 125+ native fishes, seven species are already extinct and 100 species are in decline and may be ultimately threatened with extinction. These include 31 species already listed as threatened or endangered under the state and federal Endangered Species Acts."³²

The State Board has clear authority to adopt comprehensive, science-based instream flow objectives to protect the state's fishery resources as part of the Bay-Delta Plan update to address this fishery decline. As the Court of Appeal for the First Appellate District held in *Light v. State Water Resources Control Board*, where the diversions and use of water threatened "long-lasting damage" to fishery resources, the reasonable use requirement contained in Article X, Section 2 of the California Constitution and the California public trust doctrine "demand[] that the Board have the authority to enact tailored regulations" to protect such resources. (*Light v. State Water Resources Control Board* (2014) 226 Cal.App.4th 1463, 1487.) In *Stanford Vina Ranch Irrigation Company v. State Water Resources Control Board*, the Court of Appeal for the Third Appellate District similarly concluded that State Board regulations setting minimum fishery flows were "within the Board's regulatory authority as they furthered the Board's constitutional and statutory mandate to 'prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water in

³⁰ Mavens's Notebook, State Water Board: Bay-Delta Water Quality Control Plan Update-Completed and Implemented by 2023? (December 15, 2021) [STATE WATER BOARD: Bay Delta Water Quality Control Plan update: Completed and implemented by 2023? – MAVEN'S NOTEBOOK | Water news \(mavensnotebook.com\)](https://mavensnotebook.com/state-water-board-bay-delta-water-quality-control-plan-update-completed-and-implemented-by-2023/)

³¹ Framework Document at p. 1.

³² Peter Moyle, et al., Protecting California's Aquatic Diversity in Times of Crisis (California Water Blog, March 3, 2020). <https://californiawaterblog.com/2020/05/03/protecting-aquatic-biodiversity-in-california/>

this state.’ (§ 275; art. X, § 2).” (*Stanford Vina Ranch Irrigation Company v. State Water Resources Control Board* (2020) 50 Cal. App. 5th 976, 1002.)

As the State Board staff’s timeline recognizes, the exercise of this regulatory power is not inconsistent with State Board consideration of stakeholder voluntary agreements. However, such voluntary efforts must otherwise comply with the Porter-Cologne Act, other legal obligations, and protect aquatic ecosystems. A broad range of stakeholders, including environmental organizations, disadvantaged communities, and Native American indigenous communities, among others, should be involved in discussions about voluntary agreements, and voluntary agreements must not delay the urgent work needed to protect the state’s fishery resources.

Considering the demonstrated decline in the state’s native fisheries and the state’s clear authority to address this decline, the state’s failure during the last quarter of a century to adopt and implement revised fishery flow objectives for the Bay-Delta Estuary represents an unacceptable public policy failure. To remedy this failure, we recommend the following legislative reforms.

Recommendation 9.

9a. The State Board shall adopt a final Sacramento River/Delta update of the 1995 Bay-Delta Plan as amended by the 2006 Bay-Delta Plan by December 31, 2023.

9b. The State Board shall implement the final San Joaquin River/Southern Delta update of the 1995 Bay-Delta Plan as amended by the 2006 Bay-Delta Plan through State Board regulations or other appropriate implementation methods by December 31, 2023.

9c. The State Board shall not approve any new water right permits or extensions of time for any existing permits resulting in new or increased diversions to surface water storage from the Sacramento River/San Joaquin River watershed until the State Board has adopted a final Sacramento River/Delta update and has implemented the San Joaquin River/Southern Delta update through State Board regulations or other appropriate implementation methods.

10. Accounting for Climate Change Effects on Hydrology in Determining the Availability of Unappropriated Water and in other Water Planning Decisions

Background

The State of California’s July 2020 Water Resilience Portfolio calls for the state agencies to “accelerate state permitting of projects that protect and enhance fish and wildlife and water supply reliability such as Sites [reservoir]...”³³ Water project proponents are circulating a ballot initiative that, if adopted, would annually transfer an amount equal to two percent of state revenue to a Water Supply Infrastructure Trust Account to be allocated for water projects, including surface water storage projects, to develop five million acre-feet of additional annual water supply.³⁴

Absent from this discussion has been consideration of whether California water rights law is equipped to make sufficiently accurate and reliable water rights determinations for such water projects and the management of existing water rights given the effects of climate change on future watershed hydrology. This proposal is intended to address these deficiencies.

The diversion and storage of water by new surface water projects will almost certainly require the State Board to issue new appropriative water rights permits for such projects. (Wat. Code, § 1225 [Subject to exceptions for certain minor impoundments, “no right to appropriate or use water subject to appropriation shall be initiated or acquired except upon compliance with the provisions of this division.”].) The State Board may only issue an appropriative permit where unappropriated water exists in the project’s watershed. (Wat. Code, §§ 1201, 1202.) An applicant for a permit to appropriate water must submit to the State Board “[s]ufficient information to demonstrate a reasonable likelihood that unappropriated water is available for the proposed appropriation.” (Wat. Code, § 1260, subd. (k).) As a condition to issuing an appropriative water right permit, the State Board must find “unappropriated water available to supply the applicant.” (Wat. Code, 1375, subd. (d).) In rendering an unappropriated water determination, the State Board “shall take into account, when it is in the public

³³ State of California, California Water Resilience Portfolio (July 2020) at p. 20.

³⁴ Ballot Initiative 21-0014, Water Infrastructure Funding Act of 2022, § 3.

interest, the amounts of water required for recreation and the preservation and enhancement of fish and wildlife resources.” (Wat. Code, § 1243, subd. (a).)

While the Water Code requires a water right applicant to submit information that demonstrates the availability of unappropriated water and the State Board to confirm such availability, California water rights law is silent as to the scientific methods through which streamflow estimates are to be made. State Board practice has been to estimate watershed streamflow largely from either historical stream gage records or from water availability models that consider historical watershed precipitation, watershed drainage characteristics, and other factors.³⁵ Using these historical methods, annual flows are represented in seasonal volumes.³⁶ The amount of flow already dedicated to senior water rights holders and the amount required to protect public interest values such as fish and wildlife are then subtracted from the streamflow estimates to determine if unappropriated water is available for the project. (Wat. Code, §§ 1202, 1243.)

A fundamental truth to be drawn from climate change is that past reliance upon backward-looking flow estimates based upon historical data to determine future watershed flow conditions is no longer sufficient in conducting water availability analyses given the forward-looking effects of climate change. Climate change will result in less precipitation as snow, shift peak runoff from historical patterns to earlier in the year, shorten the precipitation season, and increase the intensity and frequency of droughts.³⁷ As the State Board staff report on water rights and climate change observed “as past conditions are no longer a reliable guide to future conditions, permitting water availability analyses should incorporate climate science and projections to account for impacts of climate change.”³⁸ The report additionally notes that “[s]hifting runoff patterns...may eliminate or substantially limit an existing water right holder from maintaining traditional project yield...[and projects] may need to reconfigure operations to capture peak

³⁵ California State Water Resources Control Board, *Policy for Maintaining Instream Flows in Northern California Coastal Streams* (October 22, 2013), App. A at p. A-2; MBK Engineers, *Evaluation of State Water Resources Control Board Water Availability Analysis* (June 2001) at pp. 2-3.

³⁶ MBK Engineers, *supra* at p. 2.

³⁷ California State Water Resources Control Board, *Staff Report: Recommendations for an Effective Water Rights Response to Climate Change* (February 2021) at pp. 13-15, 21-23.

³⁸ *Id.* at p. 19.

flows when able, and to preserve carryover water to protect cold-water sensitive species needs as well as to preserve water quality in the Delta.”³⁹

Based upon the views contained in the State Board staff report and other climate change experts, developing methods and practices for “technically-driven adjustments to historical flow records based on observed firm changes in climate, such as seasonal runoff shifts and some amount of sea-level rise” and other factors are worth exploring.⁴⁰ We agree, and to that end, we recommend the following reforms.

Recommendation 10.

The Legislature should mandate and fully fund the State Board’s prompt development and adoption of regulations to provide greater specificity as to the methods and practices for determining water availability in the issuance and administration of water right permits and licenses. The State Board regulations shall include but shall not be limited to consideration of the effects of climate change upon watershed hydrology as part of the preparation of water availability analyses. In preparing the regulations the State Board shall consult with the Department of Water Resources, the Department of Fish and Wildlife, and appropriate hydrologists and climate change scientists.

11. Water Temperature to Keep Fish in Good Condition

Background:

The population of winter-run Chinook salmon is at extreme risk. The National Marine Fisheries Service has named Sacramento River winter-run Chinook as one of the eight species most at risk of extinction in the near future. In 2014-15, water temperature below Shasta Reservoir rose to greater than 60°F. This reduced early life-stage survival (eggs and fry) from Keswick to Red Bluff from a recent average of approximately 27% (egg-to-fry survival estimates averaged 26.4% for winter-run Chinook salmon in 2002-2012) down to 5% in 2014. Consequently, 95% of the year class of wild winter-run Chinook was lost in 2014 and 2015.⁴¹ Winter-run

³⁹ *Id.* at p. 21.

⁴⁰ Jay Lund, *Adjusting Past Hydrology for Changes in Climate* (2021)

<https://californiawaterblog.com/2021/11/21/adjusting-past-hydrology-for-changes-in-climate/>

⁴¹ Daniel Kratville and Mary Olswang, *Winter-run Chinook Salmon*, California Department of Fish and Wildlife, (April 10, 2018) <https://wildlife.ca.gov/Conservation/Fishes/Chinook-Salmon/Winter-run>

Chinook egg and hatchings (alevin in the gravel) are extremely sensitive to high temperatures. Winter-run salmon experience increased levels of mortality during egg and alevin development when water temperatures rise above 56°F, coupled with other potential stressors, including water quality, disease, predation, competition, habitat availability, contaminants, and food availability.

In July 2021, the California Department of Fish and Wildlife (CDFW) told CNN there will be a "near-complete loss" of the endangered species of salmon because temperatures above 100 degrees for extended periods of time are overheating the river, making it uninhabitable for the fish to grow beyond their egg stage.⁴²

"This persistent heat dome over the West Coast will likely result in earlier loss of ability to provide cool water and subsequently, it is possible that all in-river juveniles will not survive this season," CDFW said in a statement.

The legislature has recognized that dam owners have an obligation to release water from reservoirs to keep downstream fish in good condition by enacting Fish and Game Code Section 5937.

"The owner of any dam shall allow sufficient water at all times to pass through a fishway, or in the absence of a fishway, allow sufficient water to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam. During the minimum flow of water in any river or stream, permission may be granted by the department to the owner of any dam to allow sufficient water to pass through a culvert, waste gate, or over or around the dam, to keep in good condition any fish that may be planted or exist below the dam, when, in the judgment of the department, it is impracticable or detrimental to the owner to pass the water through the fishway." (Fish & Game Code, § 5937.)

It has now been convincingly demonstrated that not only must adequate flow be released but it must also be of an adequate temperature, particularly for salmonids. Therefore, it is recommended that Fish and Game Code Section 5937 be amended to reflect that reality.

⁴² Alexandra Meeks, *Extreme heat could kill nearly all young salmon in the Sacramento River, officials say*. Cable News Network (CNN) (July 24, 2021) <https://www.cnn.com/2021/07/14/weather/extreme-heat-salmon-sacramento-river/index.html>

Recommendation 11.

“The owner of any dam shall allow sufficient water of sufficient flow and temperature at all times to pass through a fishway, or in the absence of a fishway, allow sufficient water of sufficient flow and temperature to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam. During the minimum flow of water in any river or stream, permission may be granted by the department to the owner of any dam to allow sufficient water of sufficient flow and temperature to pass through a culvert, waste gate, or over or around the dam, to keep in good condition any fish that may be planted or exist below the dam, when, in the judgment of the department, it is impracticable or detrimental to the owner to pass the water through the fishway.”

Updating California Water Laws to Deal with Drought and Climate Change

Summary of Recommendations

January 2022

Recommendation 1.

The State Water Resources Control Board and the Department of Fish and Wildlife need to be provided sufficient funding to carry out their existing and new responsibilities including verifying water rights, overseeing the real-time monitoring systems, and updating the Bay-Delta Water Quality Control Plan.

Recommendation 2.

Amend California Water Code to authorize non-profit, non-governmental organizations and Tribes to be compensated for their reasonable and necessary expenses in proceedings before the State Water Resources Control Board or Regional Water Quality Control Boards to clean up waste or abate the effects of waste on waters of the State or to address an urgent drinking water need where such participation contributes significantly to the Board's decision.

The Legislature and the Administration should also explore other potential funding sources that could be used to compensate non-profit, non-governmental organizations and Tribes for their reasonable and necessary costs of participation in other proceedings of the State Water Resources Control Board (e.g., water rights proceedings) where that participation contributes significantly to the Board's decision.

Recommendation 3.

Require that at least one member of the State Water Resources Control Board and each of the Regional Water Quality Control Boards have experience in environmental justice. This would not add an additional member to the SWRCB or the Regional Boards. Rather it would be modeled on existing wording in Water Code Division I, Article 3, Section 175, "One of the above-appointed persons, in addition to having the specified qualifications, shall be qualified in the field of water supply and water quality relating to irrigated agriculture."

The recommended updating to that Section would be to add, “One of the above-appointed persons, in addition to having the specified qualifications, shall be qualified in the field of water supply or water quality relating to environmental justice.” Parallel wording would be added for Regional Board member qualifications.

Recommendation 4.

4a. The groundwater sustainability agency or agencies that cover the basin shall promptly determine after notice and opportunity for hearing whether groundwater extractions within the basin cause or will likely cause adverse impacts to the use of water from domestic wells within the basin. Such impacts shall include but are not limited to the lowering of the groundwater levels that prevent the use of water from domestic wells. If the agency or agencies determine such impacts occur or will likely occur, then the agency or agencies shall mitigate such impacts using methods that include but are not limited to; deepening existing domestic wells, repairing existing wells damaged by the groundwater extraction, connecting users of domestic wells to existing water supply systems and providing alternative water supplies.

4b. The agency or agencies shall take steps to ensure that implementation of measures to mitigate adverse impacts shall not subject owners of domestic wells or users of water from domestic wells to unreasonable financial burdens or expenses. Such steps shall include but are not limited to compensating owners and users for the increased energy costs associated with deeper groundwater pumping and increased costs to households associated with the delivery of water from existing water supply systems or other alternative water supplies.

Recommendation 5.

5a. The Water Code be amended to add the following, “The Board may, upon its own motion, enter an order initiating proceedings under this chapter for the determination of the rights of various claimants to the water of a stream, if after notice and opportunity for hearing, it finds that the public interest and necessity will be served by a determination of the rights involved.”

5b. Section 2500 of the Water Code be amended to read, “As used in this chapter, “stream system” includes a stream, lake, or other body of water, surface

tributaries and contributory sources, interconnected groundwater supplies the inclusion of which are essential to a fair and effective determination of the rights to other water of the stream system, and subterranean streams flowing through known and definite channels, but does not include other underground water supplies.”

Recommendation 6.

The proposed Water Code amendment would address this gap in State Board authority by allowing the State Board selectively to investigate and determine whether a water right claimant, diverter, or user is diverting or using water under a defensible claim of right. Specifically, the amendment would (1) allow the State Board to investigate individual water right claimants to verify their basis of right, (2) to require information from the claimants relevant to the investigation, (3) to rule upon the water right claim after notice and opportunity for hearing, (4) to impose the burden upon the water right claimant to prove the elements of the claimant’s right, and (5) to clarify that any determination of forfeiture of an appropriative right held in these proceedings would not require a showing of a competing claim or a clash of rights from other water rights holders as has been required by recent court decisions. See Appendix: Supplemental Information Regarding Improving Surface Water Rights Verification.

Recommendation 7.

7a. Provide the State Water Resources Control Board with the authority to issue interim relief orders in appropriate circumstances, after notice and opportunity for hearing, in proceedings to enforce the following

- (1) Section 2 of Article X of the California Constitution.
- (2) The public trust doctrine.
- (3) Water quality objectives adopted pursuant to subdivision (b) of Section 13142, Section 13170, or Section 13241.
- (4) The requirements set forth in permits and licenses issued pursuant to Part 2 (commencing with Section 1200), including actions that invoke the Board’s reserved jurisdiction.
- (5) Division 1 (commencing with Section 100), this division, or Article 7 (commencing with Section 13550) of Chapter 7 of Division 7.

(6) Section 5937 of the Fish and Game Code.

7b. Except as otherwise provided, any interim relief order issued by the Board should be exempt from the requirements of Division 13 (commencing with Section 21000) of the Public Resources Code if the Board makes either of the following findings:

(1) Providing interim relief will not have a significant adverse effect on the environment.

(2) Providing interim relief will result in environmental benefits, or avoid adverse impacts on the environment which may result in the absence of interim relief. If the Board makes a finding pursuant to this paragraph, the board shall also adopt the finding or findings specified in Section 21081 of the Public Resources Code.

Any findings of the Board pursuant to this section shall be supported by substantial evidence in the record. If the Board makes the findings specified in paragraph (1) of subdivision (a) of Section 21081 of the Public Resources Code, or if the Board finds that providing interim relief will not have a significant adverse effect on the environment because any potentially significant adverse effect will be avoided as a result of mitigation incorporated in the Board's order, the board shall adopt a reporting and monitoring program in accordance with Section 21081.6 of the Public Resources Code.

Recommendation 8.

8a. Based upon input from the State Water Resources Control Board, the Legislature should fully fund the State Board's monitoring and reporting efforts mandated by Senate Bill 88 of 2015.

8b. The Legislature should mandate and fully fund a Board program to establish at least two pilot projects in separate watersheds to assist in determining the feasibility of requiring a real-time monitoring and reporting system for the diversions and use of surface water.

8c. No later than five years from the effective date of the legislation, the Board should prepare a report that assesses the feasibility of requiring a real-time monitoring and reporting system for the diversions and use of surface water that incorporates the results of the pilot projects and includes but is not limited to recommendations regarding the size and type of the diversions and use that

should be subject to a real-time system and the watersheds that should be required to adopt such a system. Upon completion, the Board should make the report publicly accessible on the Board's website.

Recommendation 9.

9a. The State Board shall adopt a final Sacramento River/Delta update of the 1995 Bay-Delta Plan as amended by the 2006 Bay-Delta Plan by December 31, 2023.

9b. The State Board shall implement the final San Joaquin River/Southern Delta update of the 1995 Bay-Delta Plan as amended by the 2006 Bay-Delta Plan through State Board regulations or other appropriate implementation methods by December 31, 2023.

9c. The State Board shall not approve any new water right permits or extensions of time for any existing permits resulting in new or increased diversions to surface water storage from the Sacramento River/San Joaquin River watershed until the State Board has adopted a final Sacramento River/Delta update and has implemented the San Joaquin River/Southern Delta update through State Board regulations or other appropriate implementation methods.

Recommendation 10.

The Legislature should mandate and fully fund the State Board's prompt development and adoption of regulations to provide greater specificity as to the methods and practices for determining water availability in the issuance and administration of water right permits and licenses. The State Board regulations shall include but shall not be limited to consideration of the effects of climate change upon watershed hydrology as part of the preparation of water availability analyses. In preparing the regulations the State Board shall consult with the Department of Water Resources, the Department of Fish and Wildlife, and appropriate hydrologists and climate change scientists.

Recommendation 11.

"The owner of any dam shall allow sufficient water of sufficient flow and temperature at all times to pass through a fishway, or in the absence of a fishway, allow sufficient water of sufficient flow and temperature to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam. During the minimum flow of water in any river or stream,

permission may be granted by the department to the owner of any dam to allow sufficient water of sufficient flow and temperature to pass through a culvert, waste gate, or over or around the dam, to keep in good condition any fish that may be planted or exist below the dam, when, in the judgment of the department, it is impracticable or detrimental to the owner to pass the water through the fishway.”

Appendix: Supplemental Information Regarding Improving Surface Water Rights Verification.

It is proposed that the amendment be located as a new Article 6 to Chapter 12 of Part 2 of Division 2 of the Water Code. This placement appears apt because the title of Chapter 12 is “Enforcement of Water Rights.” Inclusion of the amendment within Part 2 of Division 2 would allow the State Board to enforce violations of decisions and orders issued under the amendment through cease and desists orders based upon section 1831, subdivision (d)(3) of the Water Code. In addition, section 1846, subdivision (a)(2) of the Water Code would authorize enforcement of the amendment’s orders through State Board-issued civil liability penalties. Lastly, as an amendment to the Water Code, section 1058 of the Water Code would empower the State Board to adopt regulations to implement the amendment.

1. Proposed Section 1860

The proposed section authorizes the State Board to conduct stream investigations to determine whether individual claimants, diverters, or users of water from a stream system have a legal basis to divert and use water. The section does not define the term “stream system.” However, the Water Code sections regarding the statutory adjudication of surface water rights define the term to include a “stream, lake, or other body of water, and tributaries and contributory sources, but does not include an underground water supply other than a subterranean stream flowing through known and definite channels.” (Wat. Code, § 2500.) The proposed section would therefore borrow from the definition of “stream system” contained in the statutory adjudication section of the code. The proposed section also borrows from the statutory adjudication sections of the code in using the language “appropriation, riparian right, or other basis of right.” (Wat. Code, § 2501.) Given that the statutory adjudication sections of the code are the key statutory provisions that specifically grant the State Board the authority to determine rights to surface water, the use of language derived from those sections in the amendment would appear proper.

2. Proposed Section 1861

The intent of this section is to provide the State Board with the information-gathering tools needed to determine whether to commence a water right

enforcement proceeding against an individual water diverter. As noted above, outside of the self-reported information contained in a diverter's statement of diversions and use and supplemental statements of diversions and use, the State Board does not typically possess the information needed to determine whether a diverter who does not hold a post-1914 statutory water right has a defensible legal basis for his or her diversion. The proposed section would allow the State Board to require that information. Section 1846, subdivision (a)(2) of the Water Code would authorize enforcement of the proposed section's information orders through State Board-issued civil liability penalties.

3. Proposed Section 1862

Proposed section 1862 would establish the scope set up the reach of the State Board's enforcement proceedings under the amendment. The State Board could either fully affirm the claimed right, limit its scope, or determine that the diversion and use have no basis of right. The term "basis of right" is taken from the statutory adjudication sections of the Water Code. (Wat. Code, § 2501.) Other diverters from the stream system or interested persons could participate in the proceedings under the State Board's existing regulations. (23 Cal. Code Reg., § 648.1.) Inclusion of the proposed section 1862 as part of an amendment to Part 2 of Division 2 of the Water Code would allow the State Board to enforce decisions or orders issued under this section through cease and desist orders authorized by section 1831, subdivision (d)(3) of the code. The State Board could also penalize violators with civil penalties under section 1846 of the code. Any decision or order issued under this section could be subject to a petition for reconsideration. (Wat. Code, §§ 1122-1123.) Judicial review of a final decision or order would occur through the filing of a petition for writ of mandate in state court under section 1094.5 of the Code of Civil Procedure. (Wat. Code, § 1126.)

4. Proposed Section 1863

This section addresses the issue of water right forfeiture, an issue that is relevant to water rights enforcement considering two recent California Court of Appeal decisions.

Sections 1240 and 1241 of the Water Code address the forfeiture of appropriative water rights for non-use and provide that:

Section 1240

The appropriation must be for some useful or beneficial purpose, and when the appropriator or his successor in interest ceases to use it for such a purpose the right ceases.

Section 1241

If the person entitled to the use of water fails to use beneficially all or any part of the water claimed by him or her, for which a right of use has vested, for the purpose for which it was appropriated or adjudicated, for a period of five years, that unused water may revert to the public and shall, if reverted, be regarded as unappropriated public water. That reversion shall occur upon a finding by the board following notice to the permittee, licensee, or person holding a livestock stockpond certificate or small domestic use, small irrigation use, or livestock stockpond use registration under this part and a public hearing if requested by the permittee, licensee, certificate holder, or registration holder.

Neither of these sections requires that the party claiming the forfeiture of an appropriative right due to non-use prove the presence of a conflicting diverter who has relied upon the unused water during the forfeiture period. On the contrary, the Third Appellate District has declared that “[g]enerally, an appropriative water right is forfeited by force of statute and reverts to the public if the appropriator fails to put it to beneficial use.” (*Erickson v. Queen Valley Ranch*, 22 Cal. App. 3d 578, 582 (1971).)

Notwithstanding the absence of any statutory language requiring proof of a conflicting claim to the unused water as an element of forfeiture, two recent Court of Appeal decisions have held that “what is required for forfeiture is not merely nonuse by the rights holder of its full appropriation, but also ‘the presence of a competing claim’ to the unused water by a rival diverter who is prepared to use, or is using, the surplus.” (*Millview County Water Dist. v. State Water Resources Control Board*, 229 Cal.App.4th 879, 900 (2014); *North Kern Water Storage District v. Kern Delta Water District*, 147 Cal.App.4th 555, 586-587, 594-595 (2007).) The *Millview* court conceded that “the [conflicting claim] principle appears not to be announced explicitly by earlier California decisions,” but upheld the principle because all earlier forfeiture cases had involved conflicting claims

and “there is no policy reason for finding a forfeiture until an alternative use has been asserted.” (*Millview, supra*, 229 Cal. App. 4th at pp. 900-901.)

The *Millview* court failed to address one obvious policy reason to reject proof of a conflicting claim as an element of forfeiture: keeping forfeited water in-stream will frequently benefit fishery or other public trust values, even in the absence of a conflicting off-stream diversion. While the court recognized that public trust uses “must be taken into account in the allocation of water,” the court defined a conflicting claim as one requiring an appropriation of water or an attempt to appropriate water, conditions that public trust users generally cannot meet. (*Id.* at pp. 903-904.)⁴³ Since *Millview* and *North Kern* do not expressly treat public trust users as conflicting claimants, then the public trust use of the unused water would not appear to trigger the forfeiture period under these cases. In such situations, assuming no other conflicting off-stream user of water, an appropriator who fails to use his or her full amount of water for the five-year forfeiture period or longer could arguably resume full use of the right, even if the resumption of use impairs public trust uses such as fishery uses that had relied upon the forfeited water in the interim.

The proposed Section 1863 would remedy this deficiency as to the amendment’s enforcement actions by eliminating the judicially created “conflicting claim” component of the forfeiture doctrine as to those actions. A finding of forfeiture would not require a showing of a conflicting water right claimant.

5. Proposed Section 1864

At present, the burden of proof in State Board proceedings investigating individual diversions and uses of water is ambiguous at best. Section 1051 of the Water Code grants the State Board the power to investigate through testimony “the rights to water or the use of water” on stream systems but is silent as to the burden of proof in proceedings arising from such investigations. (Wat. Code, § 1051.) In curtailment proceedings arising from the 2015 drought, the State Board placed the burden of proof upon the Board’s staff prosecution team to

⁴³ Generally, one cannot hold an appropriative right for an in-stream water use. (*California Trout, Inc. v. State Water Resources Control Board*, 90 Cal.App.3d 816, 821-822 (1979).) An in-stream use beneficiary might be able to assert a conflicting claimant status if that person obtained State Board approval to dedicate a portion of his or her appropriative right to in-stream uses under section 1707 of the Water Code, and such uses benefited from the presence of forfeited water in the watershed. (Cal. Wat. Code, § 1707.)

demonstrate to the Board's satisfaction that the contested diversions of water were unauthorized.⁴⁴ However, nothing in the Water Code clearly settles this question.

The proposed section would place the burden of proof in proceedings to determine the basis of right for diversion and use of water upon the water right claimant. The water right claimant would have to show by the preponderance of evidence the elements of the water right that has been claimed. If the claimant fails to meet this burden, then the State Board may determine that the claimant possesses something less than the full right claimed, or that the diversion and use of water under the claimed right lacks a defensible legal basis.

This burden principle is like the one used by the State Board when it conducts a statutory adjudication of a stream system to determine the basis of right of claimants to a stream. As section 2528 of the statutory adjudication provisions of the Water Code explains:

*Whenever proceedings are instituted for the determination of rights to water, **it is the duty of all claimants** interested therein and having notice thereof as provided in this chapter, to notify the board of their intention to file proof of claim and **to appear and submit proof of their respective claims at the time and in the manner required by this chapter.***

(Wat. Code, § 2528, emphasis added.) In such proceedings, a water right claimant must submit a proof of claim that includes all “facts as the board requires to show the extent and nature of the right and compliance with the law in acquiring it.”

(Wat. Code, § 2575, subd. (f).)

If the State Board can require all water right claimants to meet the burden of proving up their water rights during an adjudication of an entire stream system, then there exists no policy justification to impose a lesser burden when the State Board investigates and initiates a proceeding as to individual water rights.

Placing the burden of proof upon water right claimants to prove their basis of right also would not violate the constitutional requirements of procedural Due Process. As the U.S. Supreme Court has observed:

⁴⁴ State Water Resources Control Board, Order WR 2016-0015 (June 7, 2016) at p. 16.

*Where the burden of proof lies on a given issue is, of course, rarely without consequence and frequently may be dispositive to the outcome of the litigation or application.... However that may be, it is not for us to resolve the question of where the burden ought to lie on this issue. **Outside the criminal law area, where special concerns attend, the locus of the burden of persuasion is normally not an issue of federal constitutional moment.***

(*Lavine v. Milne*, 424 U.S. 577, 585 (1976), emphasis added.) Even in cases involving civil forfeiture of property arising from criminal drug charges, the federal circuits have held that imposing the burden of proof on the defendant rather than the federal government to show that seized property was unrelated to criminal activity does not violate procedural Due Process. (*United States v. \$129,727.00 U.S. Currency*, 129 F.3d 486, 492-493 (9th Cir. 1997); *United States v. Parcel of Property*, 337 F.3d 225, 233 (2nd Cir. 2003) [“While allocating the burden of proof to the claimant will undoubtedly affect the outcome of some forfeiture cases, it does not deprive the claimant of due process.”].)

6. Conclusion

Imposing the burden of proof upon a water right claimant in a State Board proceeding to determine whether a diversion and use of water are grounded in a defensible basis of right allows the State Board more promptly to identify and quantify the rights to surface water that remain outside of the Water Commission Act statutory system than is possible under existing law. Such a measure would align State Board enforcement proceedings with the burden of proof applicable in statutory adjudication proceedings, proceedings that are the most analogous to the enforcement proceedings envisioned by the amendment. Lastly, federal case law demonstrates that the proposed amendment would not violate the Due Process rights of the water right claimants affected by such proceedings.

Water rights management under climate change and increased drought frequency require accurate determination of water demand in order to determine water availability for all water right holders in a watershed. Accurate determination of demand requires verification of a watershed’s diversions or use of water, including those of senior water right holders not authorized by the Water Commission Act of 1913. The proposed recommendation would provide tools that would allow the State Board more accurately to align a watershed’s

reported water demand with the diversions and use of water authorized under California water law and thus more accurately to determine water availability for all beneficial uses of water in the state.

Proposed Legislative Language for the Recommendation

Article 6. Determination of Basis of Right [1860.—1865.]

Section 1860. The State Board may investigate the diversion and use of water from a stream system to determine whether the diversion and use are based upon appropriation, riparian right, or other basis of right.

Section 1861. In furtherance of such investigations, the State Board may issue an information order to a water right claimant, diverter, or user to provide technical reports or other information related to a diversion and use of water, including but not limited to (1) information in addition to any information required to be reported under sections 5100-5107 of the Water Code, (2) information related to the basis of the right claimed, (3) information related to the patent date claimed for the place of use, (4) information related to the notice date of the appropriation and the date of actual delivery of water to beneficial use, (5) information related to prior diversions and use, including direct diversions and diversions to storage, and (6) information related to the diversions and use of transferred water.

Section 1862. After notice and opportunity for hearing, the State Board may issue a decision or order determining the diversion and use's basis of right, including the authorized scope of the diversion and use, or may issue a decision or order determining that the diversion and use are not authorized under any basis of right.

Section 1863. In determining under this article whether a holder of an appropriative water right has forfeited the right or any portion of the right under sections 1240-1241 of the Water Code, the State Board is not required to find the existence of a conflicting claim by any water right holder within the stream system during the period of forfeiture.

Section 1864. In any State Board proceeding to determine a diversion and use's basis of right under this article, the water right claimant, diverter, or user shall

have the burden of proving by the preponderance of evidence the elements of the basis of right.

Section 1865. Nothing in this article shall limit the State Board's authority to issue any decision or order or to take any other action authorized by law.