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IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
(San Francisco Division)

NATURAL RESOURCES DEFENSE COUNCIL, BAY.ORG d/b/a THE BAY INSTITUTE and DEFENDERS OF WILDLIFE, Plaintiffs, v. GINA MCCARTHY, in her official capacity as Administrator of the United States Environmental Protection Agency; JARED BLUMENFELD, in his official capacity as Regional Administrator of the United States Environmental Protection Agency Region IX, Defendants.	Case No. _____ **COMPLAINT**

INDEX OF ACRONYMS USED IN THIS COMPLAINT

Acronym	Full Term
CFS	Cubic feet per second
CVP	Central Valley Project
CVPIA	Central Valley Project Improvement Act
CWA	Clean Water Act
D-1422	State Water Resources Control Board Water Rights Decision 1422
D-1641	State Water Resources Control Board Water Rights Decision 1641
DCC Gates	Delta cross-channel gates
DWR	Department of Water Resources
FMWT	Fall Midwater Trawl Survey
FWS	U.S. Fish and Wildlife Service
MAF	Million acre-feet
NDOI	Net Delta Outflow Index
NMFS	National Marine Fisheries Service
NRDC	Natural Resources Defense Council
OCAP	Long-Term Central Valley Project Operations Criteria and Plan
SWP	State Water Project
SWRCB	State Water Resources Control Board
TBI	The Bay Institute
X2	2 parts per thousand isohaline

INTRODUCTION

1. Plaintiffs Natural Resources Defense Council ("NRDC"), Bay.org d/b/a The Bay Institute ("TBI"), and Defenders of Wildlife ("Defenders") (collectively "Plaintiffs") bring this complaint seeking declaratory judgment and injunctive relief against Defendants Gina McCarthy, Administrator of the United States Environmental Protection Agency ("EPA"), and Jared Blumenfeld, Regional Administrator for EPA Region IX, for failing to comply with their non-discretionary duty under the Clean Water Act, 33 U.S.C. §1313(c)(2)(A), (c)(3) – (c)(4), to review and take appropriate action regarding revisions to water quality standards in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary Water Quality Control Plan ("Bay-Delta Plan") and the Water Quality Control Plan (Basin Plan) for the Sacramento River Basin and San Joaquin River Basin, 4th Edition ("Central Valley Plan"), as required by the Clean Water Act ("CWA").

2. The CWA is founded on the principles of environmental federalism. Congress delegated certain duties to the states, but required that EPA maintain oversight to insure that the states comply with their responsibilities to maintain and improve the quality of water. These principles are reflected in the CWA's structure for adopting and revising water quality standards. The CWA gives the states the responsibility of adopting and revising water quality standards, but requires that the EPA review and approve any new or revised standard to determine whether it satisfies the requirements of the Clean Water Act and, more specifically, whether it provides adequate protection to fish and wildlife and other designated uses. A new or revised standard cannot go into effect unless and until EPA approves the standard. If EPA does not approve the new or revised standard, EPA must give the state an opportunity to cure any defect. If the state fails to do so, then the EPA must promulgate federal water quality standards.

3. California's Bay-Delta estuary, where the Sacramento and San Joaquin Rivers merge to form an inland delta before entering the San Francisco Bay, serves as critical habitat to a broad array of fish and wildlife. For instance, the Bay-Delta provides migratory habitat to several anadromous species (species that are born in fresh water, spend part of their life in salt water, and then return to fresh water to spawn), including the Central Valley Steelhead and the southern distinct population segment of North American green sturgeon, which are listed as threatened under the

Federal Endangered Species Act of 1973 ("ESA"), 16 U.S.C. §1533; the Sacramento River winter-run Chinook salmon ("winter-run Chinook"), which is listed as endangered under the ESA and California Endangered Species Act ("CESA"), Cal. Fish & Game Code, §§2050, *et seq.*; the Sacramento River spring-run Chinook salmon ("spring-run Chinook"), which is listed as threatened under the ESA and CESA; and the commercially valuable Central Valley fall-run Chinook salmon ("fall-run Chinook"), which the National Marine Fisheries Service ("NMFS") has designated as a "species of concern." The Bay-Delta also provides critical habitat for resident species such as the Delta smelt, which is listed as threatened under the ESA, and as endangered under CESA, and the longfin smelt, which is listed as threatened under the CESA. Other commercially valuable species also depend on water quality in the Bay Delta, including the starry flounder and white sturgeon.

4. California's State Water Resources Control Board ("SWRCB") adopted the Bay-Delta Plan's water quality standards for the purpose of protecting these and other species of fish and wildlife, and to provide for other beneficial uses of water. The Bay-Delta Plan's water quality standards are intended to reflect scientific research about the habitat needs of these species as they migrate to, from, and through the Bay-Delta region, or spawn and rear in it. For instance, several water quality objectives[1] in the Bay-Delta Plan establish minimum flow requirements to insure that there is sufficient fresh water moving into, through, and out of the Delta at specific times of year. These flows impact habitat because they influence temperatures, water depths, salinity, turbidity (cloudiness of the water), and other factors associated with the health and habitat needs of fish species as they migrate to and through the Delta. Other Bay-Delta Plan water quality objectives limit the amount of water that the Federal Bureau of Reclamation ("Reclamation") and California Department of Water Resources ("DWR") can export out of the Delta through the Central Valley Project's ("CVP") and State Water Project's ("SWP") massive pumping facilities. These facilities divert such a large amount of water that they often make certain rivers and channels in the Delta flow backwards. Pumping through the CVP and SWP facilities diminishes the quantity and quality of water available to fish species that rely on the Delta, and also harms or kills fish by pulling them off

[1] Water quality standards include designated uses and specific "water quality criteria," sufficient to protect those designated uses. 33 U.S.C. §1313(c)(2)(A). In the Bay-Delta Plan and Central Valley Plan, water quality criteria are referred to as "water quality objectives."

their migratory paths and into the pumps' supporting infrastructure. Additional Bay-Delta Plan water quality objectives, such as minimum dissolved oxygen levels, maximum salinity levels, and parameters for the operation of Delta Cross-Channel ("DCC") Gates, provide protection for the habitat of various fish species. In addition to the Bay-Delta Plan, the Central Valley Regional Water Quality Control Board ("Regional Board") adopted the Central Valley Plan, which includes minimum dissolved oxygen levels that affect the ability of anadromous fish to migrate successfully through the San Joaquin River on their way to and from the Delta.

5. Although SWRCB and the Regional Board adopted the water quality standards in the Bay-Delta Plan and Central Valley Plan and are responsible for enforcing them, they do not operate the vast systems of dams, reservoirs, canals, and pumps in the CVP and SWP that control how water moves into, through, and out of the Delta. Reclamation and DWR, respectively, control most of that infrastructure and agreed to implement the water quality standards as a condition of the licenses and permits that SWRCB issues to operate the CVP and SWP. In 1999, SWRCB adopted Water Rights Decision 1641 ("D-1641"), which establishes terms and conditions for Reclamation's and DWR's licenses and permits. D-1641 allocates responsibility among water rights holders for meeting the water quality standards in the Bay-Delta Plan. Another decision adopted in 1973, Water Rights Decision 1422 ("D-1422"), establishes terms and conditions for the licenses and permits that the SWRCB issued to operate the CVP, along with D-1641, regarding implementation of dissolved oxygen levels in the Central Valley Plan.

6. Beginning on January 31, 2014, in response to requests from Reclamation and DWR, SWRCB revised the Bay-Delta Plan water quality standards by amending D-1641. Even though the Bay-Delta Plan accounts for drought scenarios and significantly weakens key water quality objectives in drought years, SWRCB allowed Reclamation and DWR to further reduce river flows below the minimum levels allowable, to increase the proportion of water that can be exported out of the Delta above the maximum levels allowable, to move salinity compliance locations to allow higher salinity water to enter the Delta, and to weaken restrictions on when the DCC gates may be opened. Reclamation and DWR operated under revised standards until December 1, 2014. EPA did not review, nor approve, any of these revisions to the Bay-Delta Plan water quality standards.

7. On February 3, 2015, again in response to requests from Reclamation and DWR, SWRCB made new revisions that weakened the flow, export, salinity, and DCC gates standards in the Bay-Delta Plan. Additionally, on August 4, 2015, SWRCB revised the Central Valley Plan water quality standard requiring a minimum level of dissolved oxygen in the lower section of the Stanislaus River. As in 2014, Reclamation and DWR operated under revised standards until December 1, 2015. SWRCB's orders modifying the water quality standards in the Bay-Delta and Central Valley Plans, via changes to D-1641 and D-1422, satisfy each of the elements in the EPA Handbook definition of revised water quality standards requiring EPA review. Yet EPA did not review, nor approve, any of these revisions to the Bay-Delta Plan water quality standards.

8. Poor water quality in and around the Bay-Delta has contributed to severe adverse impacts on fish species. Anadromous species, including the Central Valley Steelhead and winter-run Chinook, are teetering on the brink of extinction. And, trawl survey indices used to measure the health and abundance of resident and Delta-dependent species show that the populations of Delta smelt, longfin smelt, and other species declined to record-low or near-record-low levels in both 2014 and 2015.

9. In spite of the disastrous impacts to fish species in 2014 and 2015, SWRCB has again approved revisions to the Bay-Delta water quality standards in 2016. In response to a petition filed by Reclamation, SWRCB revised the flow requirements in the lower San Joaquin River at Vernalis that are intended to protect rearing and migrating fish and wildlife beneficial uses, and to provide outmigration flow for salmonids. SWRCB approved these revisions on April 19, 2016, and made the revisions immediately effective. As in 2014 and 2015, EPA failed to review or approve these revisions prior to their implementation.

10. Section 303(c) of the CWA requires that, whenever a state revises a water quality standard, EPA must review and either approve or disapprove the revision. 33 U.S.C. §1313(c)(2)(A), (c)(3). No revision may go into effect until EPA provides approval, or promulgates a more stringent water quality standard. 40 C.F.R. §131.21(e). EPA, however, did not review or approve SWRCB's revisions to the Bay-Delta or Central Valley Plan standards in either 2014 or

2015. Nor has EPA reviewed or approved SWRCB's revisions to water quality standards in 2016, despite those revisions already going into effect.

11. Section 505 of the CWA provides that "any citizen" may bring suit against the EPA Administrator for failing "to perform any act or duty" required by the CWA. 33 U.S.C. §1365(a)(2). By this action, Plaintiffs challenge the failure of the EPA Administrator and Regional Administrator for EPA Region IX to carry out their mandatory federal oversight duties under Section 303 of the CWA. 33 U.S.C. §1313(c)(2)(A), (c)(3) – (c)(4). Plaintiffs ask, *inter alia*, that the Court require that EPA review and take appropriate action before revisions to the Bay-Delta or Central Valley Plan water quality standards may go into effect.

JURISDICTION AND VENUE

12. This Court has jurisdiction over this action pursuant to 33 U.S.C. §1365(a) (CWA citizen-suit provision); 28 U.S.C. §1331 (action arising under the laws of the United States); 28 - U.S.C. §2201 (declaratory relief); and 28 U.S.C. §2202 (injunctive relief).

13. In compliance with 33 U.S.C. §1365(b)(2) and 40 C.F.R. §135.2(c), Plaintiffs sent a 60-day Notice of Intent to Sue to the Defendants on October 29, 2015. A copy of Plaintiffs' notice is attached hereto as Exhibit 1.

14. SWRCB has repeatedly revised the Bay-Delta Plan and Central Valley Plan water quality standards without EPA review or approval since January 2014. Most recently, on April 19, 2016, SWRCB revised water quality standards in the Bay-Delta Plan, and is currently implementing those revised standards, without EPA review or approval. An actual controversy therefore exists between the parties within the meaning of the Declaratory Judgment Act, 28 U.S.C. §2201(a).

15. Venue is properly vested in this Court pursuant to 28 U.S.C. §1391(e) (addressing "[a]ctions where defendant is officer or employee of the United States") because EPA's Region IX headquarters is in San Francisco and a substantial part of the events and omissions giving rise to the claim occurred in this district.

PARTIES

16. Plaintiff NATURAL RESOURCES DEFENSE COUNCIL ("NRDC") is a non-profit environmental organization with more than 294,000 members nationwide, including more than

54,000 members in California. NRDC's purpose is to safeguard the Earth: its people, its plants and animals and the natural systems on which all life depends. The organization works to restore the integrity of the elements that sustain life — air, land and water — and to defend endangered natural places. NRDC seeks to establish sustainability and good stewardship of the Earth as central ethical imperatives of human society and strives to protect nature in ways that advance the long-term welfare of present and future generations. For more than three decades, NRDC has advocated extensively for the protection of the nation's waterways and wildlife, including smelt, salmonid, and other species that rely on the San Francisco Bay Delta for habitat. NRDC has brought and intervened in lawsuits designed to ensure that the operations of the CVP and SWP affecting the Bay Delta do not jeopardize the continued existence of threatened and endangered fish species or adversely modify those species' critical habitat. NRDC has also long worked to protect the San Francisco Bay-Delta estuary and the fish for which it provides habitat in non-litigation settings. For example, NRDC was involved in the development of, and actively supported the enactment of, the Central Valley Project Improvement Act ("CVPIA") (Pub. L. No. 102-575, 106 Stat. 4714 (1992)), California's Delta Reform Act (Cal. Water Code §85000 *et seq.*), and participated deeply in the negotiation of the record of decision for the CALFED Bay-Delta Program, a joint federal-state process the mission of which is to develop and implement a long-term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the Bay-Delta estuary. In 2007, a joint petition filed by NRDC, the Center for Biological Diversity, and TBI prompted the California Fish and Game Commission ("Commission") to list the longfin smelt as a threatened species. NRDC has submitted protests and petitions for reconsideration of SWRCB's revisions to the water quality standards in the Bay-Delta Plan and Central Valley Plan, and has made presentations at SWRCB hearings on proposed revisions.

17. Plaintiff BAY.ORG d/b/a THE BAY INSTITUTE ("TBI") is a nonprofit conservation organization incorporated under the laws of California and dedicated to the preservation, protection, and restoration of the San Francisco Bay, its estuary, the accompanying watershed (including the Delta), and this region's fish and wildlife resources, from the Sierra Nevada Mountain Range to the Pacific Ocean. TBI's headquarters are located in San Francisco, California. TBI and its more than

1,600 members have a direct interest in the survival and perpetuation of fish species and other aquatic resources that depend upon Central Valley Rivers, the Sacramento-San Joaquin Delta, the San Francisco Bay, and its estuary. Most of TBI's members live in the San Francisco Bay's watershed, and many rely on this region for their livelihood in the commercial and sportfishing and boating industries. In addition, many TBI members regularly visit and use the San Francisco Bay, its estuary, and the Central Valley rivers that flow into the San Francisco Bay and its estuary for recreational experiences and aesthetic enjoyment. TBI regularly participates in administrative and judicial proceedings on behalf of its members to protect, enhance, and restore declining populations of native California fishes, including species that depend on the Delta. Since its founding in 1981, TBI has pioneered a research, advocacy, and education approach to the San Francisco Bay Estuary's issues that considers not just the Bay, but the entire ecosystem related to the San Francisco Bay's estuary as a single, interdependent watershed. TBI's efforts therefore encompass a region extending from the headwaters of the Sacramento and San Joaquin River systems to the Golden Gate Bridge. In 1992, TBI and other environmental organizations sued the U.S. Fish & Wildlife Service over its failure to list the Delta smelt under the ESA. Since the species' listing, TBI has carefully monitored the federal government's efforts to protect this species. TBI was also the primary technical author of the petition filed with the California Fish and Game Commission that led to the listing of the longfin smelt as a threatened species under the state ESA. TBI was one of three environmental organizations that negotiated the historic 1994 Bay-Delta Accord, which forged a consensus among the state and federal governments, and environmental, agricultural, and urban interests to achieve improvements in the water quality of the Bay-Delta. TBI has worked collaboratively with government agencies, independent academic experts, water users, and land owners to design and implement large-scale ecological restoration programs through the CALFED Bay-Delta Program, the CVPIA, and other initiatives. TBI has submitted protests and petitions for reconsideration of SWRCB's revisions to the water quality standards in the Bay-Delta Plan and Central Valley Plan. Over the past decade, TBI has also submitted extensive written comments and technical exhibits to, and testified at public workshops before, the SWRCB regarding the need to implement Bay-Delta water quality standards and to update and improve those standards.

18. Plaintiff DEFENDERS OF WILDLIFE ("Defenders") is a non-profit corporation with approximately 390,000 members across the nation, more than 52,000 of whom live in California. Defenders is dedicated to preserving wildlife and emphasizing appreciation and protection for all species in their ecological role within the natural environment. Through education, advocacy, litigation and other efforts, Defenders works to preserve species and the habitats upon which they depend. Defenders has been closely involved in policy and litigation matters associated with water quality and species habitat in the Bay-Delta region since 2000. As a member of the Central Valley Joint Venture since 2000, Defenders has worked to protect wetland and riparian habitats and species through the promotion of conservation projects, funding and policy. Defenders also worked on restoration of fish habitat and water quality monitoring in the Calavaras River in the City of Stockton between 2008 and 2014, including establishing the Stockton-based Friend of the Lower Calaveras River. Defenders has submitted protests and petitions for reconsideration of SWRCB's revisions to the water quality standards in the Bay-Delta Plan and Central Valley Plan. Defenders has appeared before, and made presentations to, the SWRCB regarding revisions to these water quality standards.

19. Plaintiffs and their respective members have been and will continue to be actively involved in efforts to protect and restore the Delta and surrounding areas, and the species that rely upon the Delta and the rivers that flow into it for habitat. Among other advocacy activities, Plaintiffs and their members have written to numerous federal, state, and local agencies and officials to urge increased protection of the species that rely upon the Delta and that rivers that flow into it for habitat.

20. Plaintiffs and their respective members live and/or work in communities near the Delta and the rivers that flow into it. In addition to advocating for protections for salmonids, smelt, and other species, members of the plaintiff organizations, all environmental or conservation organizations, are active participants in the life of the Delta and the rivers that flow into it. Individual members of each organization frequently visit these areas to use and appreciate the unique ecosystems. Plaintiffs' use of these areas for educational, scientific, and recreational activities, such as hiking, boating, bird watching, swimming, fishing, and research, would be detrimentally affected by the decline of these ecosystems. Plaintiffs and their members regularly derive scientific, educational, and conservation benefit and enjoyment from the Delta and the rivers that flow into it,

and will continue to do so by regularly engaging in scientific, education, and conservation activities involving these areas. These benefits would increase if the health of the ecosystems in these areas were to improve, and if the endangered and threatened species that rely on the Delta and the rivers that flow into it were to recover from their precarious status of being threatened with extinction.

21. Fish populations that rely on the Delta and the rivers that flow into it will continue to decline, and several species may soon become extinct, unless the utmost care is taken in protecting the species' limited critical habitat in these areas. For instance, the health of the Delta smelt population is one indicator of the overall health of the Delta. Therefore, while the extirpation of the Delta smelt from any portion of the Delta would constitute an irreparable environmental loss in and of itself, it would also indicate more generally that the health and diversity of the fish's Delta habitat had been severely degraded. These events, and the threat of these events, would deprive Plaintiffs and their members of the recreational, spiritual, professional, aesthetic, educational, and other benefits they presently derive from the Delta-related ecosystems.

22. The above-described aesthetic, conservation, recreational, scientific, educational, wildlife and fisheries preservation, and other interests of Plaintiffs and their respective members, have been, are being, and, unless the relief prayed for herein is granted, will continue to be adversely affected and irreparably injured by Defendants' failure to carry out their mandatory federal oversight role to insure that SWRCB's revisions to the Bay-Delta Plan's and Central Valley Plan's water quality standards comply with the standards of the CWA and do not cause or contribute to the decline of fish species that depend on Delta-related ecosystems for habitat. These injuries are actual and concrete and would be redressed by the relief sought herein. If Defendants' carry out their federal oversight role, it would help insure that revisions to water quality standards comply with the Clean Water Act and meet minimum requirements for the protection of fish species and the Bay-Delta ecosystem. Plaintiffs have no adequate remedy at law.

23. Plaintiffs have also suffered, and are suffering, procedural injury resulting from Defendants' failure to review and take appropriate action in response to the numerous revisions that SWRCB has made to the water quality standards in the Bay-Delta and Central Valley Plans. Specifically, Plaintiffs' procedural right—that Defendants act in accordance with the law and carry

out their mandatory federal oversight duties—is being infringed upon. Plaintiffs are therefore deprived of a critical procedural benefit that would aid them in safeguarding the Bay-Delta ecosystem and the many species of fish and other wildlife that depend upon it.

24. The Defendants in this action are:

a. GINA MCCARTHY: Ms. McCarthy is sued in her official capacity as EPA Administrator. She is responsible for the agency's implementation of the CWA. Administrator McCarthy has the authority and ability to remedy the harm inflicted by EPA's actions.

b. JARED BLUMENFELD: Mr. Blumenfeld is sued in his official capacity as Regional Administrator for EPA Region IX, which includes California. Mr. Blumenfeld is responsible for EPA's implementation of the CWA within Region IX including the Delta region. The Regional Administrator has the authority and ability to remedy the harm inflicted by EPA's actions.

FACTUAL BACKGROUND

Estuarine and Anadromous Fish Species Reliant on Bay-Delta Water Quality

25. Numerous fish species that live, spawn, rear, or migrate in the Bay-Delta depend on the adequacy of the Bay-Delta Plan and Central Valley Plan water quality standards. Several of these species are listed as endangered or threatened under the ESA or CESA, including: Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*) (listed as threatened under the ESA and CESA); Central Valley steelhead (*Oncorhynchus mykiss*) (listed as threatened under the ESA); Delta smelt (*Hypomesus transpacificus*) (listed as threatened under the ESA and endangered under the CESA); longfin smelt (*Spirinchus thaleichthys*) (listed as threatened under the CESA); Sacramento River winter-run Chinook salmon (*Oncorhynchus tshawytscha*) (listed as endangered under the ESA and CESA); and the southern Distinct Population Segment of North American green sturgeon (*Acipenser medirostris*) (listed as threatened under the ESA).

26. Bay-Delta water quality is critical to anadromous fish species that migrate through the Delta. For instance, in the San Joaquin River and its tributaries, Central Valley steelhead and fall-run Chinook depend on adequate spring flows to trigger and sustain their migration out of the rivers and into the Delta. If there are insufficient flows, salmon survival is generally substantially lower

during their downstream migration. Central Valley steelhead and fall-run Chinook are also susceptible to entrainment at the CVP and SWP pumps if exports are too high during their migratory period.

27. In the Sacramento River, the Bay-Delta water quality standards impact winter-run Chinook during their emigration from their spawning grounds in the upper Sacramento River and during their migration back. Winter-run Chinook spawn and rear in the upper reaches of the Sacramento River just below Shasta Dam. From fall through mid-winter, they emigrate downstream through the Bay-Delta region. When they enter the Delta, they are vulnerable to predation by other fish species and entrainment at the CVP and SWP pumps. The principal factors affecting winter-run survival through the Delta are water exports through the CVP and SWP pumps, whether the Delta Cross Channel ("DCC") gates are open or closed, salinity levels, and flow, turbidity, and temperatures in the Sacramento River. When winter-run Chinook reach the adult-stage of their lives, they return to the Bay-Delta region from November through June to begin their migration back up the Sacramento River. As they migrate, they depend on adequate flows to provide olfactory and other orientation cues to navigate back to their spawning grounds. Adult winter-run Chinook are also susceptible to entrainment in the CVP and SWP pumps.

28. Other anadromous species, including green sturgeon and other salmonids, migrate through the Delta and are adversely affected by reductions in flows, increases in exports, and changes in the operation of the DCC gates.

29. In recent years, several pelagic fish species (open water fish) that live in the freshwater portion of the Delta have suffered severe declines in abundance, reaching record-low or near-record-low levels, including the Delta smelt, longfin smelt, juvenile striped bass, American shad, and threadfin shad. This recent decline, known as pelagic organism decline, is due in part to poor water quality in the Bay-Delta region. The Delta smelt provides one example of the adverse effects that mismanagement of water quality has had on Delta fish species in recent years. The Delta smelt is endemic to the Bay-Delta estuary, meaning that the entire known population lives only in the Bay-Delta region. Delta smelt typically live for only one year, and are therefore particularly vulnerable to extinction as a result of harsh conditions. One year in which the population fails to

spawn or in which a high proportion of adults or juveniles are killed could result in the extinction of the species. Similarly, increased abundance from a good year will not serve to mitigate damage to the population caused by a subsequent bad year. As a result, Delta smelt are vulnerable to any disturbance to their habitat. Delta smelt live for most of their year-long life span in the low-salinity zone at the saltwater-freshwater interface or "mixing zone," and then migrate upstream to spawn. However, the amount and the quality of suitable habitat has declined dramatically due to CVP and SWP operations. As freshwater is exported, the low-salinity zone shifts upstream from large-area, shallow habitats, such as Suisun Bay, to narrow, deep river channels, which are less productive and have less habitat area. This impact to the critical rearing habitat of the smelt is compounded by disastrous levels of direct mortality that occur at the CVP and SWP pumps. Both pre-spawning adult fish moving upstream to spawn and their larval and juvenile progeny moving downstream to low-salinity rearing habitat are killed in large numbers when they are entrained in the fish screens in front of the pumps.

30. Like Delta smelt, longfin smelt are also extremely sensitive to changes in Bay-Delta water quality. Because they have a short lifespan, generally living only two years, the species is vulnerable to short-term changes in hydrology. Longfin smelt migrate into the low salinity zone to spawn during the late fall through spring, and generally prefer the low-salinity zone when they are younger and more vulnerable. The abundance of longfin smelt is closely correlated with the amount of freshwater outflow in the Delta, and is therefore susceptible to the same variations in flow, exports and salinity as the Delta smelt.

The Bay-Delta Plan and D-1641

31. On May 22, 1995, SWRCB approved the previous version of the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary ("1995 Bay-Delta Plan"). The 1995 Bay-Delta Plan, which established water quality standards for the Bay-Delta region, adopted the designated, or "beneficial," uses[2] to be protected from earlier Bay-Delta plans. These beneficial uses included, *inter alia*, Rare, Threatened, or Endangered Species; Wildlife habitat; Estuarine Habitat; Spawning, Reproduction, and/or Early Development; Migration of

[2] "Beneficial uses" are analogous under state law to "designated uses" under the CWA.

Aquatic Organisms; Cold Freshwater Habitat; Warm Freshwater Habitat; Agricultural Supply; and Commercial and Sport Fishing. To provide adequate protection for these uses, the 1995 Bay-Delta Plan established water quality objectives covering flows, exports, salinity, dissolved oxygen, and the operation of DCC Gates. Many of these objectives varied by location and time of year. Importantly, many of these objectives also varied by the type of water year.[3] Thus, the Bay-Delta Plan anticipated and planned for drought scenarios by varying the applicable standards in drought years.

32. The 1995 Bay-Delta Plan stated that its water quality standards would be made effective "by assigning responsibilities to water rights holders because the factors to be controlled are primarily related to flows and diversions." SWRCB, *Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary* at 4 (WR 95-1) (May 1995). Accordingly, in 1999, SWRCB adopted D-1641, which the SWRCB later revised in 2000. D-1641 contains terms and conditions for permits under which water rights holders operate to meet the flow- and operations-dependent objectives in the 1995 Bay-Delta Plan. DWR and Reclamation are the largest and most significant water rights holders that control the reservoirs, dams, canals, pumps, and other infrastructure used to control and move water through the Delta.

33. In 2006, SWRCB issued the current Bay-Delta Plan. As SWRCB explained in its adopting resolution, the Bay-Delta Plan did not make any "substantive amendments to the water quality standards" in the 1995 Bay-Delta Plan. SWRCB, Resolution 2006-0098 at 2 (Dec. 13, 2006). Thus, the water quality objectives in the 1995 Bay-Delta Plan did not change in the current Bay Delta Plan. The current Bay-Delta Plan states that SWRCB will continue to use D-1641 to implement the water quality objectives in the Bay-Delta Plan, and SWRCB has continuously done so. The water quality objectives for flows, export limits, salinity, dissolved oxygen, and DCC gate closures in D-1641 are identical to those in the Bay-Delta Plan.

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[3] A "water year" refers to a twelve-month period running from October 1 – September 31. The type of water year is determined based on the prior water year index and current measurements and forecasts of the unimpaired runoff. There are separate determinations for the Sacramento and San Joaquin Valleys. Water years are typically classified as wet, above normal, below normal, dry, and critically dry. Water year forecasts are updated regularly and often change during the course of the water year.

34. CWA section 303(c)(1) requires that states publicly review water quality standards at least every three years. 33 U.S.C. §1313(c)(1). In 2008, SWRCB initiated a triennial review of the Bay-Delta Plan. The SWRCB has not completed this, or any other, triennial review of the Bay-Delta Plan.

Water Quality Criteria in the Bay-Delta Plan

35. There are two types of flow objectives in the Bay-Delta Plan's water quality standards: Delta outflow and river flows. Delta outflow is determined by the Net Delta Outflow Index ("NDOI"), which is calculated by subtracting the amount of water exported from the Delta and the amount of water used in the Delta from the total flow of water into the Delta ("Delta inflow"). River flows are based on flow rates measured on the Sacramento River at Rio Vista, and on the San Joaquin River at Airport Way Bridge in Vernalis. The objectives for both NDOI and river flows vary depending on the type of water year. Generally, the flow objectives required to protect species become less protective in drier years as compared to the flow objectives in wetter years. Thus, even without the revisions at issue in this Complaint, the standards that would have applied in drought years like 2014 and 2015 were already less protective of species and required less water than the analogous standards in wetter years.

36. The NDOI serves a variety of important purposes for different species. For instance, the NDOI affects the location of salinity zones that provide habitat for Delta smelt. For a large portion of the Delta smelt's one-year lifespan, they generally prefer to be on the freshwater edge of the mixing zone of salt water and fresh water, where salinity on the bottom is approximately two parts per thousand (referred to as "X2"). Delta smelt suffer adverse impacts when flows are reduced, and the location of X2 moves upstream into the channelized, inhospitable interior Delta, away from far more favorable spawning and rearing habitat in Suisun Bay. Changes in NDOI can bring the Delta smelt into areas where they are more likely to be entrained by the CVP/SWP pumps, encounter predators, and suffer exposure to poor water quality and invasive species. The NDOI also affects the survival rate of juvenile anadromous species that are migrating through the Delta. For instance, a reduction in outflow facilitates predation mortality during migration because low flows increase the

time it takes for juveniles to leave the Delta, thus increasing the time that they are subject to predation there.

37. Sacramento River and San Joaquin River inflows to the Delta are related to NDOI. These river flows largely determine the amount of water flowing into the Delta, and therefore affect the habitat both upstream of the Delta, and in the Delta itself. The San Joaquin River's Vernalis flow objective includes both "base flow" and "pulse flow" objectives. A base flow is the standard flow required over an extended period of time, while a pulse flow is a short-term surge of water released from reservoirs which are designed to mimic the effects of natural high flow conditions. Pulse flows trigger species migration and other processes essential to a river ecosystem's health. The Vernalis spring pulse flow[4] stimulates and facilitates the outmigration of juvenile fish, including the fall-run Chinook, the Central Valley steelhead, and other species, and increases turbidity and other aspects of cover that allows these fish to avoid predation as they make their way to the ocean. NMFS has cited numerous studies showing that spring flows (both base and pulse flows) are the primary factor affecting the survival of salmonids as they migrate out of the San Joaquin River and its tributaries and through the Delta. NMFS Biological Opinion on the Long-Term CVP/SWP Operations 423-26 (June 4, 2009). In the fall, the Vernalis October pulse flow attracts the migration of anadromous fish species back into the San Joaquin River, including fall-run Chinook and Central Valley steelhead; similarly, the spring pulse flow is likely to play a key role in encouraging return of spring-run Chinook salmon to the San Joaquin Basin.

38. Water quality objectives establishing maximum rates of water exports are generally intended to protect habitat for estuarine and anadromous fish species, and to limit entrainment at the CVP/SWP pumping facilities in the south Delta. Generally, when export rates are higher, there is an increased risk that fish habitat will be negatively impacted and that individual fish will be entrained into inhospitable areas of the interior Delta or pulled into the pumps, potentially in large numbers. Export limits are defined as an "export rate," which is a percentage of inflow of water into the Delta.

[4] Although the spring pulse flow typically occurs from April 15 to May 15, fishery agencies may adjust the flow based on real time monitoring of the location of salmonids in the San Joaquin River Basin and its tributaries.

39. Water quality objectives establishing salinity levels are intended to protect agricultural and fish and wildlife uses from harmful levels of salinity, caused by saltwater intrusion, municipal discharge, and agricultural runoff. The water quality objectives require that salinity levels remain below maximum levels, as measured in millimhos per centimeter (a measure of electroconductivity, which is a proxy for salinity), at certain compliance locations throughout the Delta.

40. Water quality objectives establishing minimum levels of dissolved oxygen are intended to protect fish and wildlife uses in and upstream of the Delta. Fish breathe dissolved oxygen, and depend on it for survival. Rapidly moving water tends to contain more dissolved oxygen because of increased surface turbulence, while stagnating water contains less. Because cold water holds more dissolved oxygen than warmer water, dissolved oxygen levels typically decrease as temperatures rise in the hot summer months. When dissolved oxygen levels decrease too much, it can harm species and ecosystems that rely on higher dissolved oxygen conditions. For example, low dissolved oxygen can impede or completely block the upstream migration of salmonids and cause direct mortality. The dissolved oxygen water quality objective in the Bay-Delta Plan requires that there is a minimum level of dissolved oxygen, measured in milligrams per liter, at a specified location between September and November. The Central Valley Plan's water quality objectives for dissolved oxygen set minimum levels for waters designated for different types of species and habitat at locations upstream of the Delta.

41. The DCC gates objective establishes requirements for the closure of the DCC gates during particular periods of the year. The DCC is a controlled diversion channel that diverts the flow of the Sacramento River away from its natural course and towards the CVP and SWP pumping plants in the south Delta, which lift water into the Delta-Mendota Canal and California Aqueduct to be exported to agricultural, municipal, and other water users south of the Delta. When the DCC gates are open, a larger portion of the Sacramento River's flow can be diverted and exported. When the gates are open, migrating salmonids are often diverted into the central Delta, where they are more likely to be entrained at pumping facilities and suffer other adverse impacts. Water quality objectives in the Bay-Delta Plan thus require that the DCC gates remain closed during certain periods of the year.

Revisions to the Bay-Delta Plan and Central Valley Plan Water Quality Standards in 2014-2016

42. In 2014, 2015, and 2016, SWRCB made numerous revisions to water quality standards in the Bay-Delta and Central Valley Plans by amending D-1641 and D-1422.

43. On January 31, 2014, SWRCB "amended or rescinded . . . the requirements of D-1641 for DWR and Reclamation to meet specified water quality objectives." SWRCB, Order Approving a Temporary Urgency Change in License and Permit Terms and Conditions Requiring Compliance with Delta Water Quality Objectives in Response to Drought Conditions 13 (Jan. 31, 2014). SWRCB made revisions to the Bay-Delta Plan's water quality standards, including the following:

a. The Bay-Delta Plan establishes a minimum NDOI of 7,100 cfs for February – June, calculated as a 3-day running average, or alternate compliance with salinity standards. SWRCB revised the water quality objective governing NDOI during the month of February to a minimum 3,000 cfs. SWRCB later extended this revision through May.

b. The Bay-Delta Plan requires that the DCC gates remain closed from February 1 through May 20. SWRCB revised the water quality objective governing DCC gate closure to allow the opening of the gates as Reclamation and DWR deemed necessary.

44. On April 11, 2014, SWRCB made additional revisions to the Bay-Delta Plan water quality standards. The Bay-Delta Plan establishes flow requirements for the San Joaquin River at Airport Way Bridge in Vernalis. The 2014 water year type for the San Joaquin River Basin was "critical." In critical water year types, depending on the location of X2, the base flow requirement from February 1 – April 14 and from May 16 – June 30 is a monthly average of either 710 or 1,140 cfs; and, from April 15 – May 15, the pulse flow requirement is a monthly average of either 3,110 or 3,540 cfs.[5] SWRCB revised each of these criteria to require a 700 cfs minimum flow on a three-day running average. Thus, SWRCB effectively eliminated the spring pulse flow in 2014.

45. On May 2, 2014, SWRCB made additional revisions to the Bay-Delta Plan water quality standards, including the following:

[5] The higher of the two flow objectives for each time period applies when X2 is required to be at or west of Chipps Island.

a. The Bay-Delta Plan establishes a minimum NDOI of 4,000 cfs, calculated on a monthly average, for July in critical years. SWRCB revised this water quality objective to a minimum 3,000 cfs on a monthly average, and a minimum 1,000 cfs on a seven-day running average.

b. The 2014 water-year type for the Sacramento River Basin was critical. The Bay-Delta Plan establishes minimum flow requirements in critical years on the Sacramento River at Rio Vista of 3,000 cfs for September and October, and 3,500 cfs for November, calculated on a monthly average. SWRCB revised the water quality criteria for Rio Vista flow from September 1 – November 15 to a minimum 2,000 cfs on a monthly average, and a minimum 1,500 cfs on a seven-day running average.

c. The Bay-Delta Plan establishes a salinity compliance location requiring that the 14-day running average of mean daily electroconductivity not exceed 2.78 mmhos/cm on the Sacramento River at Emmaton in critical years. SWRCB revised this water quality criteria by moving the salinity compliance location from Emmaton upstream to Threemile Slough, thus allowing high-salinity water to intrude further into the Delta and reducing the necessity for adequate flows.

46. On October 8, 2014, SWRCB revised the Bay-Delta Plan water quality standard requiring a fall pulse flow for the San Joaquin River at Vernalis of 1,000 cfs during the month of October downward to require a minimum average monthly flow of 800 cfs.

47. On February 3, 2015, SWRCB made new revisions to the Bay-Delta Plan water quality standards, including the following:

a. SWRCB revised the minimum NDOI for February and March from 7,100 cfs to a minimum 4,000 cfs on a monthly average, and a 7-day running average not less than 1,000 cfs below the monthly average.

b. Because the 2015 water-year type in the San Joaquin Valley was critical, the minimum flow rates for the San Joaquin River at Airport Way Bridge in Vernalis between February 1 and April 14 were either 710 or 1,140 cfs. SWRCB revised the minimum flow rate during the months of February and March to a minimum 500 cfs on a monthly average.

c. As in 2014, SWRCB again revised the Bay-Delta Plan requirement that the DCC gates remain closed between February 1 and May 20. The revision allowed the gates to be opened in February and March as deemed necessary.

d. Generally, the Bay-Delta Plan limits exports from the Delta to 35% of delta inflow between February and June. However, when the best available estimate of the Eight River Index for January is less than or equal to 1.0 million acre-feet, as was the case in February 2015, the export limit for February is 45%. The February 3 order set forth a complex modification of the export limits in the Bay-Delta Plan and D-1641 that allowed for even higher export levels.

48. On April 6, 2015, SWRCB made additional revisions to the Bay-Delta Plan water quality standards, including the following:

a. SWRCB extended the changes to the minimum NDOI through June 2015, the DCC gate closure requirement until May 20, and the export limitations through June.

b. Because it was a critical year, the flow requirement for the San Joaquin River at Vernalis for the spring pulse flow period were a monthly average of either 3,110 or 3,540 cfs. In 2015, the pulse flow period was adjusted to cover the period from March 25 to April 25. SWRCB reduced the required volume of the spring pulse flow to 710 cfs. Thus, for a second consecutive year, SWRCB effectively eliminated the spring pulse flow.

c. In critical years, the Vernalis base flow requirement after the pulse flow ends through June is a monthly average of either 710 or 1,140 cfs. SWRCB revised the average minimum flow requirement between April 26 and May 31 to no less than 300 cfs. The minimum for June was reduced to 200 cfs on a monthly average. The seven-day running average minimum was set at 20 percent below the minimum flow rate from April 26 – June 30.

d. SWRCB again revised the Bay-Delta Plan water quality standards requiring the 14-day running average of mean daily electroconductivity not to exceed 2.78 mmhos/cm on the Sacramento River at Emmaton in critical years by moving the salinity compliance location from Emmaton upstream to Threemile Slough through June.

49. On July 3, 2015, SWRCB made additional revisions to the Bay-Delta Plan water quality standards, including the following:

a. SWRCB extended the change in the salinity compliance location until August 15.

b. SWRCB reduced the minimum NDOI in July from 4,000 cfs to 3,000 cfs on a monthly average.

c. SWRCB reduced the minimum flows in the Sacramento River at Rio Vista from the critical-year monthly average of 3,000 cfs in September and October and 3,500 cfs in November to 2,500 cfs, and the minimum seven-day running average to 2,000 cfs.

50. On August 4, 2015, SWRCB revised the dissolved oxygen objective for the Stanislaus River below Goodwin Dam. The Central Valley Plan establishes that, for waters outside the legal boundaries of the Delta, "[t]he dissolved oxygen concentrations shall not be reduced below the following minimum levels at any time: Waters designated [for warm habitat beneficial uses] 5.0 mg/l; Waters designated [for cold habitat beneficial uses] 7.0 mg/l; Waters designated [for spawning] 7.0 mg/l." Fourth Edition of the Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins III-5.00 (Sept. 15, 1998). Because the Stanislaus River from Goodwin Dam to the San Joaquin River has warm, cold, and spawning freshwater habitat beneficial uses, the more protective minimum 7.0 mg/l objective is the operative objective for dissolved oxygen in the Stanislaus River from Goodwin Dam to the San Joaquin River. D-1641 and D-1422 implement the relevant dissolved oxygen objective in the Central Valley Plan. SWRCB's August 4 order revised the water quality standards to allow Reclamation to operate the Central Valley Project to meet a minimum dissolved oxygen level until November 30, 2015 in the Stanislaus River below Goodwin Dam of 5.0 mg/l, instead of the 7.0 mg/l level provided for in the Central Valley Plan.

51. On April 19, 2016, SWRCB made new revisions to the Bay-Delta and Central Valley Plan water quality standards, including the following:

a. The water-year type in the San Joaquin Valley for 2016 was "dry." In dry years, depending on the location of X2, the flow requirement in the San Joaquin River at Vernalis for the spring pulse flow period is a monthly average of either 4,020 or 4,880 cfs. In 2016, the Bay-Delta Plan requirement in D-1641 for the April 15 – May 15 spring pulse flow period is 4,880 cfs. SWRCB revised the spring pulse flow requirement downward to 3,000 cfs.

b. In dry years, depending on the location of X2, the base flow requirement in the San Joaquin River at Vernalis from May 16 – June 30 is a minimum monthly average of 1,420 or 2,280 cfs. In 2016, the base flow requirement is 2,280 cfs. SWRCB revised the base flow requirement downward to 1,000 cfs from May 15 – May 31, and to 500 cfs for the month of June.

52. EPA did not review, nor approve, the revisions that SWRCB made to the Bay-Delta Plan and Central Valley Plan water quality standards in 2014, 2015, or 2016.

53. During the periods covered by the above-described revisions to the Bay-Delta Plan and Central Valley Plan water quality standards, Reclamation and DWR operated, or are operating, the CVP and SWP based on the revised standards, and in violation of the EPA-approved water quality standards that were in effect prior to the revisions.

Status of Species Inhabiting the Bay-Delta Since the 2014 and 2015 Revisions to the Bay-Delta and Central Valley Plan Water Quality Standards

54. In 2014 and 2015, there were high levels of mortality to both anadromous fish species that migrate through the Delta, including Central Valley steelhead, and fall-run, winter-run, and spring-run Chinook, and resident and Delta-dependent species, including Delta smelt, longfin smelt, and other species. In 2016, the SWRCB acknowledged that "the status quo of the past two years is not sustainable for fish and wildlife." SWRCB Order WR 2015-0043 at 39.

55. In 2014 and 2015, there were serious declines in the populations of anadromous species, including Central Valley steelhead and fall-run Chinook salmon, migrating through the San Joaquin River basin. These declines are principally due to poor water quality in the basin and Delta. In the Sacramento River, poor water quality played a role in the almost-complete mortality of the 2014 and 2015 generations, or "brood years," of winter-run Chinook. Reclamation incorrectly estimated cold-water reserves and then mismanaged releases of that cold water from Shasta Reservoir, causing a fatal elevation in temperatures that led to 95% mortality of the 2014 brood year of winter-run Chinook salmon eggs and fry, and 98% mortality to eggs and fry in the 2015 brood year. Most winter-run Chinook live for three years, spawning just once, so the loss of the 2016 brood year (the third brood in a row) would be particularly devastating to the population. While proper management and allocation of cold-water reserves in Shasta Reservoir has been the principal

factor contributing to mortality of the 2014 and 2015 brood years, mortality during passage through the Delta has had a compounding adverse effect on winter-run Chinook.

56. The effects of poor water quality on several resident and Delta-dependent species has been particularly well documented in trawl surveys designed to measure their abundance. For instance, the Fall Midwater Trawl Index ("FMWT") survey measures Delta smelt, longfin smelt, other species' abundance based on catch data at over 100 locations throughout the Delta. Between 1993 and 2013, the average, FMWT index for the Delta smelt was 292. In 2014, the FMWT declined to single digits for the first time in the 48-year history of the survey. Scientists were able to collect eight Delta smelt in their trawl nets, yielding an index of nine. In 2015, scientists collected just six smelt, bringing the 2015 FMWT index to seven. Other trawl surveys measuring Delta smelt abundance corroborated the results of the FMWT. The Spring Kodiak Trawl Survey ("SKT"), which determines the relative abundance of pre-spawning and spawning Delta smelt based on samples from 39 locations throughout the delta, was 13.8 in 2015, the lowest index total on record. Members of the Smelt Working Group, a group of federal and state agency experts charged with reviewing data on the Delta smelt's status, expressed concern that, in addition to the low numbers in the SKT, the adult smelt they did catch were in poor condition, indicating diminished resilience in the depleted population. As with the FMWT and SKT, the Summer Townet Survey, which measures juvenile Delta smelt distribution and abundance during the June – July period based on catch at 31 stations, also hit its lowest total in the 54-year history of the survey when it reached 0.0 in 2015. The longfin smelt has also experienced a dramatic decline in abundance. From 1993 – 2013, the FMWT index for longfin smelt averaged 1,518. In 2014, the index for longfin smelt sank to 16, the second-lowest level on record. In 2015, the index dropped to four, the lowest level on record and less than 3% of the index one generation earlier (as measured in 2013).

LEGAL BACKGROUND

57. The CWA aims "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" and to attain, *inter alia*, "water quality which provides for the protection and propagation of fish, shellfish, and wildlife." 33 U.S.C. §1251(a), (a)(2). Under the

CWA, federal and state governments share the responsibility of monitoring and regulating water pollution.

58. Towards these goals, the CWA requires each state to establish water quality standards for bodies of water within the state's boundaries. 33 U.S.C. §1313(a) – (c); 40 C.F.R. §130.3. The state must first designate the use or uses of a particular body of water. 33 U.S.C. §1313(c)(2)(A); 40 C.F.R. §131.10. The state must then designate water quality criteria that are sufficient to protect the designated uses, 33 U.S.C. §1313(c)(2)(A); 40 C.F.R. §§131.6(c), 131.11.

59. Congress established a system of mandatory federal oversight to ensure that states maintain adequate water quality standards. The CWA provides that "[w]henever the State revises or adopts a new [water quality] standard, such revised or new standard shall be submitted to the Administrator" of the EPA. 33 U.S.C. §1313(c)(2)(A). Although the states are required to submit any new or revised standard for review, the EPA has an affirmative duty to review any new or revised standard regardless of whether the state makes a submission. *Fla. Pub. Interest Research Grp. Citizen Lobby v. U.S. Envtl. Prot. Agency*, 386 F.3d 1070, 1073 (11th Cir. 2004) ("*FPIRG*") ("While states are primarily responsible for establishing these water quality standards, the EPA, in turn, is required to undertake a review of any new or revised water quality standards adopted by the states."); *Friends of Merrymeeting Bay v. Olsen*, 839 F. Supp. 2d 366, 375 (D. Me. 2012) ("The EPA is under an obligation to review a law that changes a water quality standard regardless of whether a state presents it for review."); *see also* EPA Frequently Asked Questions 2 (EPA-820-F-12-017, Oct. 2012) ("EPA has a mandatory duty to approve or disapprove a new or revised [water quality standard] even if the state did not submit such new or revised [water quality standard] to EPA for review.").

60. The EPA must review a new or revised water quality standard to determine whether it complies with multiple requirements, including, *inter alia*: (1) the water quality criteria in the new or revised standard "are consistent with the requirements of the [CWA]"; (2) the water quality criteria "protect the designated water uses"; (3) in adopting or revising the standard, the state followed its own "legal procedures for revising or adopting standards"; (4) that "standards which do not include [fish and wildlife protection or recreational uses] are based upon appropriate technical and scientific

data and analyses"; and (5) that the new or revised standard "meets the requirements included in [40 C.F.R.] § 131.6."[6] 40 C.F.R. §131.5. If the standards submitted to the EPA meet each of these criteria, the EPA must approve the standard. *Id.* §131.5(b). Otherwise, the EPA must disapprove the standard and, unless the state submits an acceptable revised standard within ninety days, promulgate a federal water regulation that meets the strictures of the CWA. *Id.*; 33 U.S.C. §1313(c)(3) – (c)(4).

61. An existing water quality standard "remains the applicable standard until EPA approves a change, deletion, or addition to that water quality standard, or until EPA promulgates a more stringent water quality standard." 40 C.F.R. §131.21(e); *FPIRG*, 386 F.3d at 1070.

62. The EPA has interpreted the CWA and its implementing regulations in its Water Quality Standards Handbook ("EPA Handbook"). Chapter 1.5.1, entitled "What Provisions Constitute New or Revised Water Quality Standards Under Clean Water Act Section 303(c)," sets forth a four-part definition for "new or revised water quality standards." If the responses to the following four questions are affirmative, EPA has a non-discretionary duty to review the relevant provision and take appropriate action under CWA section 303(c)(2)(A), (c)(3) – (4):

> (1) Is it a legally binding provision adopted or established pursuant to state or tribal law?; (2) Does the provision address designated uses, water quality criteria to protect designated uses, and/or antidegradation requirements for waters of the United States?; (3) Does the provision express or establish the desired condition (e.g. designated uses, criteria) or instream level of protection (e.g., anti-degradation requirements) for waters of the United States immediately or mandate it will be expressed or established for such waters in the future?; (4) Does the provision establish a new WQS or revise an existing WQS? . . . A provision that establishes a new WQS or has the effect of changing an existing WQS would meet this consideration. In contrast, a provision that simply implements a WQS without revising it would not constitute a new or revised WQS."

EPA Handbook 1.5.1.

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[6] The "minimum requirements for water quality standards submission[s]" in 40 C.F.R §131.6 include: "(a) Use designations consistent with the provisions of sections 101(a)(2) and 303(c)(2) of the Act; (b) Methods used and analyses conducted to support water quality standards revisions; (c) Water quality criteria sufficient to protect the designated uses; (d) An antidegradation policy consistent with § 131.12; (e) Certification by the State Attorney General or other appropriate legal authority within the State that the water quality standards were duly adopted pursuant to State law; and (f) General information which will aid the Agency in determining the adequacy of the scientific basis of the standards which do not include the uses specified in section 101(a)(2) of the Act as well as information on general policies applicable to State standards which may affect their application and implementation."

63. SWRCB's orders modifying the water quality standards in the Bay-Delta and Central Valley Plans, as implemented by D-1641 and D-1422, satisfy each of the elements in the EPA Handbook definition of revised water quality standards requiring EPA review.

64. SWRCB's orders modifying the Bay-Delta Plan and Central Valley Plan water quality standards are "legally binding provision[s] adopted or established pursuant to state . . . law." EPA Handbook 1.5.1. SWRCB's orders modifying Reclamation's and DWR's permits and licenses were issued pursuant to state law and have legally binding effect. Specifically, SWRCB made its revisions in response to petitions filed by Reclamation and DWR under California Water Code §§1435-1441.

65. SWRCB's orders modifying the Bay-Delta Plan and Central Valley Plan water quality standards, "address designated uses [and] water quality criteria to protect designated uses . . . for waters of the United States." EPA Handbook 1.5.1. SWRCB's 2014 and 2015 orders approving modification of Reclamation's and DWR's licenses and permits clearly "address" the water quality criteria in the Bay-Delta and Central Valley Plans, which were promulgated for the purpose of protecting fish and wildlife and other designated uses. The 2014, 2015, and 2016 orders allow Reclamation and DWR to operate the CVP and SWP based on water quality criteria other than those in the Bay-Delta and Central Valley Plans.

66. SWRCB's orders modifying the Bay-Delta Plan and Central Valley Plan water quality standards "express and establish a desired condition" both "immediately" and "in the future." EPA Handbook 1.5.1. The modifications are expressed as changes to the "desired condition" because they effectively change the water quality criteria set forth in the Bay-Delta and Central Valley Plans. In its Water Quality Handbook, EPA clarifies that a change in water quality criteria establishes and expresses a new "desired condition." *Id.* Additionally, SWRCB's orders express and establish new water quality criteria "immediately" and "in the future." For instance, SWRCB's July 3, 2015 order reduced the minimum NDOI for the month of July 2015 to 3,000 cfs, and the Rio Vista flow to 2,500 cfs for the September – November 2015 period.

67. SWRCB's orders modifying the Bay-Delta Plan and Central Valley Plan water quality standards have "the effect of changing an existing water quality standard" and are not mere

implementation decisions. EPA Handbook 1.5.1. Federal courts apply the "effects test" reflected in EPA's Water Quality Handbook definition to determine whether a state law or regulation is subject to section 303 review. *See, e.g.*, *FPIRG*, 386 F.3d at 1080; *Nw. Envtl. Advocates v. Envtl. Prot. Agency*, 855 F. Supp. 2d 1199, 1209 (D. Or. 2012). SWRCB utilized its authority to issue a final administrative order approving modifications that effectively revised the water quality standards in the Bay-Delta and Central Valley Plans. Although the SWRCB's orders did not amend the text of the Bay-Delta and Central Valley Plans themselves, the orders modified the requirements in D-1641 to meet water quality objectives in the Bay-Delta and Central Valley Plans. When the SWRCB decides not to implement a water quality objective, it is making a "de facto amendment to a water quality objective in a water quality control plan," even if it is temporary in duration. *State Water Res. Control Bd. Cases*, 136 Cal.App.4th 674, 732 (2006). The SWRCB worked a "de facto amendment" to the Bay-Delta and Central Valley water quality standards by modifying the conditions of Reclamation's and DWR's licenses and permits under D-1641 and D-1422 such that they could operate the CVP and SWP in violation of the Bay-Delta and Central Valley Plans.

68. SWRCB's orders are not mere implementation decisions within the meaning of EPA regulations. Under 40 C.F.R. §131.13, "states may, at their discretion, include *in their State standards*, policies generally affecting their application and implementation, such as mixing zones, low flows and variances." (Emphasis added). The Bay-Delta and Central Valley Plans do not include provisions providing for the revisions to the water quality standards in SWRCB's orders. Nor has SWRCB defined or described its orders as "variances," or any other type of implementation decision within the meaning of 40 C.F.R. §131.13.

69. The EPA has failed to carry out its mandatory federal oversight role by ignoring SWRCB's ongoing and intermittent pattern of revising the Bay-Delta Plan and Central Valley Plan water quality standards. The EPA thus violated, and continues to violate, CWA section 303(c), 33 U.S.C. §1313(c)(2)(A), (c)(3) – (c)(4), by failing to review and take appropriate action in response to SWRCB's revisions of the water quality standards in the Bay-Delta and Central Valley Plans.

CLAIM FOR RELIEF
Violations of Clean Water Act
33 U.S.C. §1313(c)(2)(A), (c)(3) – (4); 40 C.F.R. §§131.5, 131.21

70. Plaintiffs re-allege and incorporate by reference all the allegations set forth in this Complaint.

71. Section 303(c) of the Clean Water Act and its implementing regulations require that the EPA Administrator and Regional Administrator review any revision to a state's water quality standards. 33 U.S.C. §1313(c)(2)(A), (c)(3); 40 C.F.R. §§131.5, 131.21. The Defendants have violated, and are violating, Section 303(c) of the CWA and its implementing regulations by failing to carry out their non-discretionary duty to review SWRCB's ongoing and intermittent revisions in 2014, 2015, and 2016 to the water quality standards in the Bay-Delta and Central Valley Plans. 33 U.S.C. §1313(c)(2)(A), (c)(3); 40 C.F.R. §§131.5, 131.21.

72. After reviewing a revision to a state's water quality standards, the EPA Administrator or Regional Administrator must take appropriate action. The EPA Administrator or Regional Administrator must either approve or disapprove of the revisions. 33 U.S.C. §1313(c)(2)(A), (c)(3); 40 C.F.R. §§131.5, 131.21. If the EPA Administrator or Regional Administrator disapproves of a revision, the CWA sets forth mandatory steps that the Administrator or Regional Administrator must take to provide the state with an opportunity to cure any defects and, if the state fails to do so, to promulgate federal regulations to replace the deficient state water quality standards. 33 U.S.C. §1313(c)(3) – (4); 40 C.F.R. §131.21. The EPA Administrator and Regional Administrator for EPA Region IX have violated, and are violating, Section 303(c) of the CWA by failing to carry out their non-discretionary duty to take appropriate action after review of SWRCB's revisions to the Bay-Delta and Central Valley Plans. *Id.*; 40 C.F.R. §131.5.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs respectfully request that the Court grant the following relief:

A. Order and declare that the Defendants are in violation of Section 303(c) of the Clean Water Act and its implementing regulations for failing to review, and take appropriate action in

response to, SWRCB's revisions to the water quality standards in the Bay-Delta and Central Valley Plans.

B. Enter injunctive relief requiring that the Defendants comply with Section 303(c) of the Clean Water Act and its implementing regulations by reviewing, and taking appropriate action in response to, any current or planned revision to the water quality standards in the Bay-Delta and Central Valley Plans.

C. Enter injunctive relief requiring that the Defendants immediately notify SWRCB that the revisions to the water quality standards in the Bay-Delta and Central Valley Plans described in this Complaint are in violation of Section 303(c) of the Clean Water Act and its implementing regulations and that any current or planned revision may not go into effect or be implemented until and unless the EPA Administrator and Regional Administrator for EPA Region IX review and approve such revisions.

D. Enter injunctive relief requiring that the Defendants comply with Section 303(c) of the Clean Water Act and its implementing regulations by reviewing, and taking appropriate action in response to, any future revision SWRCB makes to the water quality standards in the Bay-Delta and Central Valley Plans before such revisions go into effect.

E. Retain jurisdiction over this matter until such time as the EPA Administrator and Regional Administrator have fully complied with the Court's order.

F. Award Plaintiffs their reasonable costs, litigation expenses, expert witness fees, and attorney's fees associated with this litigation pursuant to Section 505 of the Clean Water Act, 33 U.S.C. §1365(d), and all other applicable authorities.

G. Grant Plaintiffs such further and additional relief as the Court deems just and proper.

Dated: April 22, 2016

Respectfully submitted,

/s/ Katherine Poole
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