

CHAPTER I. INTRODUCTION

The San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay/Delta Estuary, Bay/Delta, or Estuary) is a large ecosystem providing habitat for numerous fish and wildlife species. Water that flows through the Bay/Delta Estuary supplies a portion of the domestic water supply for over two-thirds of the population of the State of California and irrigates several million acres of farmlands (DWR 1994).

On May 22, 1995, the State Water Resources Control Board (SWRCB) adopted the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (1995 Bay/Delta Plan or Bay/Delta Plan) which establishes objectives for the protection of municipal, agricultural, and fish and wildlife beneficial uses in the Bay/Delta Estuary (SWRCB 1995). The 1995 Bay/Delta Plan includes objectives in the Bay/Delta Estuary for Delta outflow, Sacramento and San Joaquin river flows, salinity, dissolved oxygen, and State Water Project (SWP) and Central Valley Project (CVP) operations. The SWRCB intends to implement the 1995 Bay/Delta Plan primarily through its water right authority, but water quality-related measures may also be required. The responsibility to implement the 1995 Bay/Delta Plan objectives will be assigned in an order of the SWRCB to water right holders and other parties who affect attainment of the objectives. The order will be prepared following a hearing.

A. PURPOSE OF REPORT

The purpose of this environmental impact report (EIR) is to disclose and analyze the significant environmental effects of alternatives for implementing the objectives in the 1995 Bay/Delta Plan and to identify, where appropriate, ways to avoid, reduce, or compensate for environmental damage. This report and other evidence will be considered by the SWRCB during its preparation of an order to implement the 1995 Bay/Delta Plan. The SWRCB may also use this report in subsequent proceedings related to implementation of the 1995 Bay/Delta Plan.

The SWRCB was required to comply with the requirements of the California Environmental Quality Act (CEQA) when it adopted the 1995 Bay/Delta Plan under its water quality authority. Appendix 1 of the 1995 Bay/Delta Plan, the Environmental Report (ER), was prepared to fulfill the SWRCB's CEQA obligation. The ER, though not an EIR, is a substitute document, prepared under authority granted by the Secretary of Resources in Public Resources Code section 21080.5 and Title 14, California Code of Regulations (CCR), section 15251(g). The Deputy Secretary and General Counsel of the California Resources Agency (CRA) has advised the SWRCB that an environmental analysis prepared under section 21080.5 can be used as a programmatic document if it meets the criteria in Title 14, CCR, section 15168 (CRA 1995). The ER meets the required criteria, and therefore this EIR should be considered a tiered programmatic document, building upon and incorporating by reference the ER.

The effects of implementation of most of the 1995 Bay/Delta Plan's objectives by the SWP and the CVP are analyzed in the ER; other alternatives are not analyzed. In order to facilitate comparison of the alternatives, some of the analysis of the alternative in which the SWP and the CVP are responsible for meeting the 1995 Bay/Delta Plan's objectives is repeated in this EIR.

B. BACKGROUND

The background discussion for the proposed action is divided into two parts: (1) institutional setting and (2) recent regulatory actions affecting the Bay/Delta Estuary.

1. Institutional Setting

a. SWRCB. The SWRCB was formed in 1967 when the State Water Rights Board and the State Water Quality Control Board were merged by the Legislature. The SWRCB is composed of five full-time appointees of the Governor. Under its dual legal authority, the SWRCB allocates rights to the use of surface water and, together with the nine Regional Water Quality Control Boards (RWQCB), protects water quality in all waters of the State.

The Porter-Cologne Act is the basic water quality control law for California, and it is administered by the SWRCB and the RWQCBs (Water Code section 13000 et seq.). The SWRCB and the RWQCBs also implement portions of the federal Clean Water Act. One of the principal functions of the SWRCB and the RWQCBs is to prepare water quality control plans. Water quality control plans are blueprints for water quality control. The plans identify beneficial uses of waters, water quality objectives for the reasonable protection of beneficial uses, and programs of implementation for the water quality objectives. In most cases, water quality objectives are not directly enforceable. In order to ensure their implementation, water quality objectives usually are implemented through waste discharge requirements or water right permits. In addition, Water Code section 1258 provides that the SWRCB shall consider water quality control plans when it acts on water rights.

The SWRCB and the RWQCBs have adopted water quality control plans that cover all areas of the State. There are two types of water quality control plans: water quality control plans adopted by the SWRCB and regional water quality control plans adopted by the RWQCBs. Water quality control plans adopted by the SWRCB supersede any regional water quality control plans for the same waters to the extent that there is any conflict.

The portions of the water quality control plans that fall under the jurisdiction of the federal Clean Water Act require approval by the U.S. Environmental Protection Agency (USEPA). When approved by the USEPA, the water quality objectives and beneficial use designations become water quality standards under the federal Clean Water Act.

The SWRCB is also charged with administering the State's water right system. The principal authority the SWRCB used in the past to implement Bay/Delta Plans was its water right authority because the issues addressed in these plans were largely related to flow and water project operations.

b. Water Right System. California has established a water right system that allows for the orderly allocation and use of its water supply. Although California law recognizes several types of rights to surface water, riparian and appropriative rights are the most common.

A riparian right exists by reason of ownership of land abutting a stream or other body of water. The right allows a water user to divert from the natural flow of a stream for use on land within the watershed of the source. Seasonal storage of water is not allowed under a riparian right. Riparian rights are correlative. If there is insufficient water for the reasonable requirements of all the riparian users, the available supply must be shared relative to the needs of each user. With certain limited exceptions, riparian water users have first priority to the use of the natural flow in a river. Water remaining after riparian users have taken their share is available to appropriators. No permit or license is necessary to divert water under claim of riparian right; however, a record of water use under riparian claim should be established by filing a Statement of Water Diversion and Use with the SWRCB.

Unlike riparian rights, an appropriative right carries a priority relative to other appropriative rights. The water user who is first in time is entitled to the full quantity of water specified under the right before junior appropriators may exercise their rights. Appropriative water rights fall into two general categories: pre-1914 appropriative water rights and post-1914 appropriative water rights. No permit or license is necessary to divert water under claim of pre-1914 appropriative right; however, a record of water use under claim of pre-1914 appropriative right should be established by filing a Statement of Water Diversion and Use with the SWRCB. Since 1914, appropriative rights have been obtained by receiving a permit or license from the SWRCB or its predecessor agencies. All new appropriators must file an application with the SWRCB and obtain a permit before diverting water. In granting permits, the SWRCB determines whether the water will be put to beneficial use, how much water may be taken, when and where it can be taken, and necessary conditions to protect the environment, the public trust and prior rights. If the water is diverted and applied to beneficial use in accordance with the terms of the permit for a period of years, a license may be issued confirming the extent of the permittee's right.

The SWRCB has authority to amend an existing water right by invoking: (1) its reserved jurisdiction over certain permits under Water Code section 1394; (2) its continuing authority to prevent waste and unreasonable use, or unreasonable method of use or diversion of water under the California Constitution, Article X, section 2; or (3) its continuing authority to protect public trust uses of water.

The largest water projects in the Central Valley are the CVP, operated by the U.S. Bureau of Reclamation (USBR), and the SWP, operated by the California Department of Water Resources (DWR). The watershed protection and area of origin statutes (Water Code sections 11460 and 10505 et seq.) accord first priority to water rights for use within the watershed, and areas immediately adjacent. The water rights for the CVP and SWP are subject to these provisions, and diversions for export by these projects are restricted until the needs in the watershed, including protections for beneficial uses in the Estuary, are met. At present, these two water right holders are responsible, pursuant to Water Right Decision 1485 (D-1485), Order WR 98-09, and the federal biological opinions, for meeting Bay/Delta Estuary water quality objectives.

2. History of SWRCB Action

Regulation of the Bay/Delta Estuary has occurred through the adoption of water right decisions, water quality control policies, and water quality control plans. A brief summary of the principal decisions, policies, and plans relevant to the Bay/Delta Estuary is provided below.

In February 1961, the State Water Rights Board (predecessor to the SWRCB) adopted Water Right Decision 990, which approved water rights for the CVP. The Board did not attach specific water quality standards as terms and conditions of the CVP permits; however, it did reserve jurisdiction to impose such requirements in the future.

The development of water quality standards for the Bay/Delta Estuary began with the adoption of agricultural salinity standards as terms and conditions of Water Right Decision 1275, which approved water rights for the SWP in May 1967. In response to the concern by the Secretary of the Interior that existing standards for the Delta did not adequately protect municipal, industrial, agricultural, and fishery uses, the SWRCB (newly created by the amalgamation of the State Water Rights Board and the State Water Quality Control Board) adopted a water quality control policy for the Delta through Resolution 68-17 in 1968. This policy supplemented a water quality control policy for the Delta that was developed by the Central Valley RWQCB and adopted by the SWRCB in June 1967. In accordance with a commitment made in Resolution 68-17 to supplement the salinity standards, the SWRCB adopted Water Right Decision 1379 (D-1379) in July 1971. D-1379, which required the CVP and the SWP to meet standards for non-consumptive fish and wildlife uses in addition to agricultural, municipal, and industrial consumptive uses, was stayed by action of the court in October 1971 as a result of litigation.

In 1971, the RWQCBs adopted, and the SWRCB approved, interim water quality control plans for the 16 planning basins in the State, including the Delta and Suisun Marsh. These regional water quality control plans marked the completion of the first phase of a comprehensive statewide planning effort. Subsequently, long-term standards for the Delta and Suisun Marsh were established in the regional plans for the Sacramento-San Joaquin Delta Basin and the San Francisco Bay Basin, which were approved by the SWRCB in 1975 and 1976, respectively. Meanwhile, in April 1973, the

SWRCB adopted a water quality control plan, through Resolution 73-16, which supplemented the State water quality control policies for the Bay/Delta Estuary.

In August 1978, the SWRCB exercised its reservation of jurisdiction over the water right permits for the CVP and the SWP by adopting D-1485. At the same time, the SWRCB adopted the 1978 Water Quality Control Plan for the Sacramento-San Joaquin Delta and Suisun Marsh (1978 Delta Plan). Together, the 1978 Delta Plan and D-1485 revised existing standards for flow and salinity in the Delta's channels and ordered the USBR and the DWR to meet these standards by either reducing pumping, or releasing water stored in upstream reservoirs, or both. To address the continuing uncertainty associated with possible future project facilities and the need for additional information on the Estuary's ecosystem, the SWRCB committed to review the 1978 Delta Plan in 10 years.

Following the adoption of D-1485, the USBR and the DWR protested numerous water right applications within the Delta watershed. The protests alleged that diversions by new applicants at certain times would force the SWP and the CVP to release stored water to meet the Delta objectives in D-1485. As an interim solution, the SWRCB adopted Standard Water Right Permit Term 91 and placed it in permits issued on applications filed after August 16, 1978. Term 91 prohibits permittees from diverting water being released from project reservoirs to meet Delta water quality objectives or other inbasin entitlements. SWRCB Order 81-15 specifies a procedure for determining when this condition is occurring.

A hearing on water availability was held by the SWRCB in April 1983. Decision 1594, adopted in November 1983, extended Term 91 to all permittees whose permits are subject to the SWRCB's reserved jurisdiction for potential Delta obligations, and with direct diversion of greater than one cubic foot per second (cfs) or storage of greater than 100 acre feet (AF).

The SWRCB started the hearings to amend the 1978 Delta Plan and D-1485 in July 1987. A draft water quality control plan, which contained objectives for water quality and flow-related parameters, was issued in November 1988. The draft plan met intense opposition, and it was withdrawn in January 1989.

After withdrawing the 1988 draft plan, the SWRCB bifurcated the process. It first prepared a draft water quality control plan that did not include flow and export objectives. The plan was to be followed by a water right decision that would include flow and export objectives and allocate responsibility to meet all the of the objectives. In May 1991, the SWRCB adopted the 1991 Water Quality Control Plan for Salinity for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (1991 Bay/Delta Plan) which included objectives for salinity, dissolved oxygen, and temperature. Litigation ensued. In September 1991, the USEPA disapproved most of the fish and wildlife objectives in the plan. Meanwhile, the SWRCB began preparing an EIR to support a water right decision.

In April 1992, Governor Pete Wilson announced a new water policy. Among other provisions, the policy requested the SWRCB to initiate a hearing process to develop interim protections to stop the decline of fish and wildlife resources in the Bay/Delta Estuary.

The SWRCB conducted a water right hearing during the summer of 1992. Draft Water Right Decision 1630 (D-1630) was released in December 1992. Draft D-1630 proposed interim water right terms and conditions to protect the Bay/Delta Estuary. On April 1, 1993, the Governor requested that the SWRCB cease its work on draft D-1630 and instead work on long-term protections, and the SWRCB concurred. The SWRCB cited two reasons for withdrawing draft D-1630. First, regulatory requirements for the Bay/Delta Estuary were being established through the federal Endangered Species Act (ESA), and these requirements would benefit a broad range of species. The National Marine Fisheries Service (NMFS) issued a biological opinion under the authority of the ESA on February 12, 1993 (NMFS 1993) which included regulatory requirements to avoid jeopardy to winter-run chinook salmon. Also, the U.S. Fish and Wildlife Service (USFWS) listed the delta smelt as a threatened species under the ESA in March 1993, and it informed the SWRCB that the biological opinion would probably establish further requirements in the Estuary. The biological opinion was issued on February 4, 1994 (USFWS 1994). Second, the wet year of 1993 ended the 1987-1992 drought, which was a substantial factor in the decline of Bay/Delta aquatic resources, and uncontrolled runoff was benefiting the fishery. Under these circumstances, the interim water right decision was deemed unnecessary.

Because the SWRCB had not adopted new objectives to replace the disapproved objectives in the 1991 Bay/Delta Plan, the USEPA published draft water quality standards for the Bay/Delta Estuary on January 6, 1994 (USEPA 1994). In March 1994, the SWRCB gave notice of a series of workshops to review the 1991 Bay/Delta Plan.

In the summer of 1994, the State and federal agencies with responsibility for management of Bay/Delta resources signed a Framework Agreement (Framework 1994) in which the agencies agreed to cooperate in three areas. First, the SWRCB would update and revise its 1991 Bay/Delta Plan to meet federal Clean Water Act requirements. Next, the SWRCB would initiate a water right proceeding to implement the requirements in the plan. Second, a group would be formed, consisting of representatives of the California Department of Fish and Game (DFG), DWR, SWRCB, USFWS, NMFS, USEPA, and USBR, to facilitate the coordination of water project operations with all of the regulatory requirements in the Delta. Third, the State and federal agencies agreed to undertake a joint long-term solution finding process for the Bay/Delta Estuary.

On December 15, 1994, representatives of the State and federal governments and urban, agricultural (principally urban and agricultural water exporters), and environmental interests agreed to the implementation of an interim Bay/Delta protection plan effective for three years. The protection plan and the institutional agreements necessary to implement the plan are contained in a

document, titled "Principles for Agreement on Bay/Delta Standards between the State of California and the Federal Government" (Principles Agreement) (Principles 1994). The SWRCB released the draft 1995 Bay/Delta Plan on the same day. The draft 1995 Bay/Delta Plan was consistent with, but not exactly the same as, the Principles Agreement. A hearing was held on the draft 1995 Bay/Delta Plan on February 23, 1995, and the 1995 Bay/Delta Plan was adopted on May 22, 1995.

The Principles Agreement calls for immediate implementation by the SWP and the CVP through reconsultation of the biological opinions for winter-run chinook salmon and delta smelt. The biological opinions were amended for this purpose by the USFWS and the NMFS in March 1995 and May 1995, respectively (USFWS 1995, NMFS 1995).

The USEPA published its final rule regarding water quality standards for the Bay/Delta Estuary in January 1995 (USEPA 1995a). However, the Principles Agreement states that the USEPA will withdraw the rule if the SWRCB adopts approvable water quality objectives. In September 1995, the USEPA approved the 1995 Bay/Delta Plan based on its determination that the 1995 Bay/Delta Plan protects the beneficial uses of the Bay/Delta Estuary and complies with the requirements of the Clean Water Act (USEPA 1995b). The USEPA has not yet satisfied its commitment to withdraw its January 1995 Bay/Delta standards.

On February 28, 1995, the DWR and the USBR filed a joint petition requesting the SWRCB to amend the water right permits of the SWP and the CVP in order to eliminate inconsistencies between the permits' conditions and the objectives in the 1995 Bay/Delta Plan. The SWRCB adopted Water Right Order 95-6 (WR 95-6) on June 8, 1995 for this purpose. WR 95-6 was an interim order that expired either (1) upon adoption by the SWRCB of a comprehensive water right decision that allocates final responsibilities for meeting the 1995 Bay/Delta Plan objectives or (2) on December 31, 1998, whichever came first. On December 3, 1998, the effective term of the changes approved in WR 95-6 was extended until December 31, 1999, when the SWRCB adopted Order WR 98-09.

C. LEGAL CONSIDERATIONS REGARDING PREPARATION AND USE OF THIS REPORT

This EIR is prepared under Public Resources Code section 21100 et seq. by the SWRCB. This EIR contains environmental information and analysis of a range of potential alternative actions allocating responsibility to meet the water quality objectives in the 1995 Bay/Delta Plan and other measures to protect public trust resources. No preferred alternative is identified in this EIR. Any decision of the SWRCB will fall within the range of potential alternative actions described and analyzed within this final EIR. The SWRCB intends that formulation of the decision, whether it reflects one of the alternatives in the EIR, a combination of the EIR's alternatives, or a variant of one of the EIR's alternatives, will not result in addition of "significant new information" to the EIR within

the meaning of Public Resources Code section 21092.1. (See *Laurel Heights Improvement Association of San Francisco, Inc. v. The Regents of the University of California* (1993) 26 Cal.Rptr.2d 231, 6 Cal.4th 1112.)

This EIR is a subsequent EIR, following the ER that was prepared in connection with adoption of the 1995 Bay/Delta Plan. As is explained in the ER, the ER is a programmatic document which was prepared, not only to analyze the effects of adopting the 1995 Bay/Delta Plan, but also to analyze the then-known effects of implementing the objectives in the 1995 Bay/Delta Plan. The whole project is defined in the ER as follows:

"The project is the review, and amendment where appropriate, of both the SWRCB's objectives for protection of fish and wildlife in the Bay/Delta Estuary and the program of implementation for achieving the objectives and protecting the beneficial uses. The program of implementation includes actions the SWRCB will undertake to achieve the objectives and recommendations to other entities for actions that will contribute to achieving the objectives and improve habitat conditions for fish and wildlife."

The SWRCB has adopted the first part of the project, which is the 1995 Bay/Delta Plan containing the water quality objectives, the plan for implementation, and the recommendations to other entities. This EIR addresses the effects of alternative measures that will implement the objectives in the 1995 Bay/Delta Plan¹ through allocation of responsibility to specific water right holders, and it builds upon and incorporates by reference the ER.

In accordance with Title 14, CCR, section 15168(d), the ER provides part of the basis for determining whether the implementation of the water quality objectives will have significant effects. It also is incorporated herein by reference repeatedly to deal with regional influences, secondary effects, certain cumulative impacts, broadly applicable actions within the alternatives, and other factors that apply to the program as a whole. (See section 15168(d), *supra*.)

¹ In addition to analyzing the effects of a range of alternatives for implementing the objectives in the 1995 Bay/Delta Plan, this EIR addresses the effects of alternatives for action by the SWRCB regarding a petition for approval of joint use of the SWP and CVP points of diversion and redirection in the southern Delta. The SWRCB plans to consider whether and under what terms and conditions to approve the petition, when it considers allocating responsibility to implement the objectives in the 1995 Bay/Delta Plan.

Literature Cited in Chapter I

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