HERUM\CRABTREE
ATTORNEYS

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April 6, 2009

VIA ELECTRONIC AND OVERNIGHT MAIL

Mr. Chris Carr
State Water Resources Control Board
Division of Water Rights
P.O. Box 2000
Sacramento, CA 95814-2000

Re: Stockton East Water District/
Comment Letter – Southern Delta Salinity/San Joaquin River Flows WQCP Workshop

Dear Mr. Carr:

On behalf of Stockton East Water District, attached please find one electronic copy of the Comment Letter regarding Southern Delta Salinity/San Joaquin River flows WQCP Workshop. Additionally, fifteen (15) hard copies will be sent to you today via overnight mail.

Should you have any questions, or require any additional information, please do not hesitate to contact me.

Very truly yours,

KARNA E. HARRIGFELD
Attorney-at-Law

KEH:md

Enclosures

CONSIDERATION OF POTENTIAL AMENDMENTS TO THE WATER QUALITY CONTROL PLAN FOR THE SAN FRANCISCO BAY/SACRAMENTO-SAN JOAQUIN DELTA ESTUARY RELATING TO SOUTHERN DELTA SALINITY AND SAN JOAQUIN RIVER FLOW OBJECTIVES

WRITTEN COMMENTS OF STOCKTON EAST WATER DISTRICT

The State Water Resources Control Board (State Water Board) has requested information on the following issues: (1) What should the program of implementation be for the southern Delta salinity objectives; (2) What should the San Joaquin River flow objectives be to protect fish and wildlife beneficial uses and where and when should those objectives apply; and (3) What should the program of implementation be for the San Joaquin River flow objectives? The following are the comments of Stockton East Water District (SEWD) regarding those identified issues.

(1) Stockton East Water District supports modification of the program for implementation of the southern Delta salinity objectives.

SEWD supports modification of the program for implementation of the southern Delta salinity objectives. The obligation for meeting Vernalis salinity objective was first imposed upon New Melones Reservoir in D-1422, however, since that time the salt load and concentration of the San Joaquin River has drastically increased and the timing of drainage has changed. Imposition of this requirement upon New Melones Reservoir based upon current conditions is an unreasonable and non-beneficial use of water pursuant to Article X Section 2 of the California Constitution, and therefore cannot be imposed by the State Water Board or voluntarily provided by the Reclamation. Furthermore, the State Water Board should not require and/or mandate releases of water from New Melones Reservoir to provide dilution flows to meet the Interagency Station Nos. C-6, C-8 and P-12 on the San Joaquin River (respectfully, San Joaquin River at Brandt Bridge, Old River near Middle River and

Old River at Tracy Road Bridge) collectively including Vernalis herein referred to as "Southern Delta Salinity Objectives."

New Melones Reservoir Should Not Provide Dilution Flows to Achieve the Southern Delta Salinity Objectives

Currently, USBR operates New Melones Reservoir to meet the salinity objective at **Vernalis** despite the fact that the State Water Board imposed this burden on all CVP permits, not just the New Melones permits. [D 1641, pgs. 159-160] USBR's election to use water solely from New Melones Reservoir for dilution flows to meet the Vernalis salinity objective over the years has required releases in excess of 134,000 acre feet in a single year, and for the years 1992 through 2008 water quality releases in excess of 879,000 acre feet. These water quality releases have deprived the New Melones CVP water contractors, including SEWD, of water under their contract with USBR. Additionally, these releases have far exceeded what was contemplated when New Melones Reservoir was authorized and constructed.

New Melones Congressional Authorization

Over the years, many parties to the Bay Delta proceedings have **inaccurately** suggested that New Melones Reservoir was authorized for the purpose of addressing water quality in the San Joaquin River. Congress did not authorize New Melones for water quality purposes. Rather, Congress directed the Army Corps of Engineers (Army Corps) to consider the "advisability of including storage for regulation of stream flow for the purpose of downstream water quality control," which it did. **Exhibit "A."** In 1965 the Army Corps concluded that no more than 48,500 acre feet annually would ever be required to control salinity at Vernalis. **Exhibit "B."** Relying on that conclusion, the Regional Director of the USBR concluded that provision of limited water quality benefits "will not affect the project's yield," and that the New Melones Project "should not be considered as a complete solution to this problem." **Exhibit "C."**

Based upon these and other findings, the Regional Director conditionally recommended including water quality as an authorized purpose of New Melones as follows:

> Accordingly, I recommend that the. . . water quality objectives be incorporated into the New Melones Unit with the stipulation that, during its 50 year repayment period, these objectives will not require releases exceeding 70,000 acre feet in one year.

Based on the recommendation with this stipulation, the Army Corps recommended inclusion of water quality as one of the authorized purposes for New Melones. The project proceeded to be built on that assumption and conclusion, and Congress took no further action. Further supporting this conclusion, in 1969 USBR entered into an agreement with the Regional Water Quality Control Board committing to provide water for water quality purposes "but not in excess of 70,000 acre-feet in any one year" to meet the salinity objective at Vernalis. **Exhibit "D."**

Recent Congressional Authorization – HR 2828

In an effort to cure the inequitable and adverse impact on New Melones CVP water contractors of USBR utilizing New Melones solely to achieve Vernalis water quality objective, Congress once again stepped in and passed legislation providing direction regarding New Melones Reservoir and specifically, actions that should be taken to increase the water supply available to the New Melones CVP water contractors, including SEWD.

The following is a brief highlight of the important aspects of HR 2828:

- HR 2828 (Public Law 108-361, signed October 25, 2004) contains important direction for the Secretary of the Interior and the Bureau of Reclamation regarding operation of New Melones Reservoir. **Exhibit "E."**
- HR 2828 requires not later than one year from the enactment, the Secretary must develop **and initiate implementation** of a program (Program) to meet all existing water quality standards and objectives for which the CVP is

responsible. The Program currently implemented by USBR is nothing more than the status quo, they have undertaken no new actions to relieve the burden on New Melones to meet existing Vernalis water quality objective.

- HR 2828 is clear in what should be included in the Program: (1) Recirculation program to provide flow, reduce salinity concentrations and **reduce the reliance on New Melones Reservoir for meeting water quality and fishery objectives** through the use of excess capacity in export pumps and conveyance facilities; (2) Best Management Practices (BMP) Plan that focus on reducing water quality impacts from discharges from wildlife refuges. The BMP plan is to be coordinated with other entities discharging water into the San Joaquin River to reduce salinity concentrations discharged into the River, including the timing of discharges to optimize their assimilation.
- The overall purpose of the Program is to provide Interior with greater flexibility in meeting the existing objectives **so as to reduce the demand on water from New Melones Reservoir used for that purpose and to assist the Secretary in meeting any obligations to CVP contractors from the New Melones project.**
- HR 2828 also expressly authorizes acquisition of water from willing sellers to meet the water quality and flow objectives for which the CVP is responsible so as to assist in meeting allocations to CVP contractors from the New Melones Project.

HR 2828 provides clear direction, Reclamation must act to **reduce the existing demand on water from New Melones Reservoir for meeting water quality objectives**, so that increased deliveries can be made to the New Melones CVP water contractors.

Release from New Melones to achieve the Southern Delta Salinity Objectives should not be continued as these releases frustrate the original New Melones Congressional Authorization, they deprive New Melones CVP water contractors of water needed in their service areas and are contrary to the most recent Congressional Authorization mandating reduction in releases from New Melones to meet these objectives.

(2) Stockton East Water District supports modification of the San Joaquin River Flow Objectives because it is not supported by any scientific or biological basis.

The San Joaquin River Flow Objectives (non-VAMP) should be eliminated because there is no scientific or biological basis for the established objectives. The existing objective is a negotiated political solution via the Principles for Agreement. In developing the San Joaquin River Flow Objectives, which is the San Joaquin River contribution to the Delta Outflow, the parties arbitrarily set the San Joaquin Flow Objective at either 10%, 20% or 30% of the surrogate X2 Delta Outflow at either Collinsville or Chipps Island. No biological assessment or other scientific justification supported these figures; the parties simply picked a percentage. This startling fact has been confirmed by the Bureau of Reclamation (one of the parties to the negotiations) in its "Summary of 1997 Analysis of PROSIM and SANJASM Results Demonstrating Instances of Failure to Meet Vernalis Base Flows Required for X2 Compliance, attached as **Exhibit "F."**

Recognizing the uncertainty surrounding the Principles for Agreement, the 1995 Bay-Delta Water Quality Control Plan (1995 Plan) required prompt re-evaluation of the San Joaquin River Flow Objective. The 1995 Plan states that **[t]hese flows are interim flows and will be reevaluated as to timing and magnitude, up or down, within the next three years.** [1995 Plan, pg. 28] While the State Water Board conducted workshops on these flows for the 2006 Bay Delta Water Quality Control Plan (2006 Plan), the State Water Board did not modify the San Joaquin River Flow Objectives, but instead set it as an "emerging issue" that needed additional water quality control planning consideration.

The 1995 Plan states the purpose of the San Joaquin River Flow Objectives as providing attraction and transport flows and suitable habitat for various life stages of aquatic organisms, including Delta smelt and Chinook salmon. [1995 Plan, pg. 15] The 1995 Plan notes that the USBR intends to meet San Joaquin River flow requirements, in accordance with the March 6, 1995 U.S. Fish and Wildlife Service biological opinion for the threatened Delta smelt, which are consistent with the San Joaquin River flow objectives in this plan. [1995 Plan, pg. 28] This logic is circular, however, because both the 1995 Plan and the 1995 Biological Opinion were derived from the negotiated solution contained in the Principles for Agreement.

The Environmental Impact Report (EIR) prepared for the 1995 Plan acknowledged that there was not a direct relationship between Delta outflows and Delta smelt protection. Specifically, the 1995 Plan EIR at page V-65 states: "[t]he relationship between Delta outflows and smelt abundance is not a simple one (Moyle et al. 1992). In fact, high outflows, such as those that occurred in February 1986, may have flushed Delta smelt out of the Estuary (SFEP 1992a). Unlike striped bass, longfin smelt, and other species with planktonic larvae, the Delta smelt does not show a strong correlation in abundance with outflows (DWR 1992a, NHI 1992, SFEQ 1992a). The substantial annual variation in abundance of smelt probably masks any long-term trends liked to outflows (NHI 1992a). It is believed that February-June Delta outflows are needed to transport larval and juvenile Delta smelt away from the influence of the export pumps and into low salinity productive rearing habitat in Suisun Bay and Suisun Marsh (USFWS 1994)."

We have obtained significant information since adoption of the 1995 Plan, all of which supports elimination of the San Joaquin River Flow Objective for the following reasons:

- The required San Joaquin River flows contribute little to Delta outflow. (Kimmerer 2004) The majority of San Joaquin River flow is exported by the SWP and CVP at the pumps with 0.1% of San Joaquin River flow making up Delta Outflow at Martinez. (San Joaquin River Group – EXH-24 – (6/3/05) Flow Science Inc., Fischer Delta Model Study – Fate of a Conservative Tracer During Water Years 2000-2001)
- Tidal flows overwhelm net flows in the Delta and more strongly affect Delta smelt and Chinook salmon movements and distribution, so only very high Vernalis flows are likely to affect Delta smelt and salmon smolt transit times significantly (Kimmerer 2004) (Baker/Morhardt (2001). Thereby significantly reducing the value of making San Joaquin River flows for the protection of Delta smelt and Chinook salmon.

- Recent evidence suggests that intermediate to high late winter and spring flows in the San Joaquin River attract spawning adult Delta smelt into the South Delta, potentially leading to increased entrainment. (Nobriga, M., Z. Hymanson, K. Fleming and C. Ruhl. 2001. Spring 2000 delta smelt salvage and Delta hydrodynamics and an introduction to the Delta Smelt Working Group's decision tree. *IEP Newsletter* 14(2): 42-46; Nobriga, M., Z. Hymanson R. Oltmann. 2000. Environmental factors influencing the distribution and salvage of young delta smelt: a comparison of factors occurring in 1996 and 1999. *IEP Newsletter* 13(2): 55-65)

Because there is no scientific or biological basis for the San Joaquin River Flow Objectives, SEWD supports elimination of these objectives.

The State Board should not tie the San Joaquin Flow Objective to Delta Outflow Objectives

The San Joaquin River Flow Objectives during February through April 14 and May 16 through June are improperly tied to hydrologic conditions in the Sacramento River basin. While, Table 3 – Footnote 13 states that the water year classification for the San Joaquin River flow objectives are established based on San Joaquin Valley Water Year Hydrologic Classification at the 75% exceedence level, a higher level of flow is triggered if X2 is at or west of Chipps Island. Location of X2 is highly dependent on Sacramento River flow conditions.

There is no scientific or biological justification for the flow objectives on the San Joaquin River, let alone the higher flows triggered by the placement of X2. Moreover, there is insufficient justification for the higher flow objectives on the San Joaquin River and tying it to Sacramento River hydrology. If the State Water Board intends to continue with a San Joaquin River Flow Objective, we advocate for the lower flow value currently contained in the 1995 Plan as the controlling flow objective during the February through June period and the reference to X2 in Footnote 13 deleted. Any additional flow necessary to meet the existing X2 objective

should be borne by the Sacramento River Basin.

These lower flows closely parallel the original flow objective proposed by US Fish and Wildlife Service in the 1994 Biological Opinion for Delta smelt as follows:

> The minimum average San Joaquin River flow (calculated at Vernalis) component of these flows is:

Outflow/ Water-Year Type	Wet	Above Normal	Below Normal	Dry	Critical Dry
San Joaquin River Component	2000 cfs	2000 cfs	1500 cfs	1200 cfs	800 cfs

> USFWS 1994 BO for Delta smelt issued February 4, 1994.

This flow schedule represents the closest thing we have to a non-political scientific determination. It was imposed before the Principles for Agreement selected its random flows, and before the Bureau imposed the Interim Plan of Operation on the Stanislaus River operations. Thus, if the State Water Board is going to continue with the San Joaquin River Flow Objectives we would recommend either the San Joaquin River Flows contained in 1994 BO for Delta smelt or Table 3 should be modified as follows:

> Table 3 Water Quality for Fish and Wildlife Beneficial Uses
>
> San Joaquin River flow at Airport Way Bridge, Vernalis:

Outflow/ Water-Year Type	Wet	Above Normal	Below Normal	Dry	Critical Dry
San Joaquin River at Airport Way Bridge, Vernalis	2130 cfs	2130 cfs	1420 cfs	1420 cfs	710 cfs

(3) Stockton East Water District supports modification the Program of Implementation for the San Joaquin River Flow Objectives.

While the Bureau of Reclamation voluntarily agreed to meet the San Joaquin River Flow Objectives, it has not been able to meet them with any consistency. This is particularly true because the Bureau has relied only on New Melones Reservoir to provide these flows. Though the Bureau has other means to meet the San Joaquin River Flow Objectives other than New Melones Reservoir, and frankly has been directed by this Board to use other sources, the Bureau has refused to do so. Over the past nine years, the Bureau has repeatedly either asked for relief from the State Water Board or not met the objective. The reasoning that the Bureau has used to justify relief from the objective is the need to preserve storage in the New Melones Reservoir AND the lack of any impact on fisheries if the objective is not met.

The State Water Board has had various responses, sometimes allowing relaxation, or requiring additional export reductions and/or requiring the Bureau to make an equivalent amount of water available elsewhere in the system for fishery protection later in the summer.

The modeling done for the 1995 Plan confirmed that New Melones Reservoir had insufficient water to achieve the San Joaquin River Objectives based on the current operations plan. Reclamation's modeling shows in at least one month in the February-April (pre-VAMP) period, the San Joaquin River Flow Objectives were not met in 13 out of 71 years. In June, San Joaquin River Flow Objectives were not met in 14 out of 71 years. [**Exhibit "F," pg. 1-2**] There is simply insufficient water available from New Melones Reservoir to condition Reclamation water rights for New Melones Reservoir on achieving the existing San Joaquin River Flow Objectives.

We appreciate the opportunity to provide written comments on the potential amendments to the Bay-Delta Plan relating to South Delta Salinity and San Joaquin River Flow Objectives.

REFERENCE LIST:

Baker, Peter F. and J. Emil Morhardt. (2001). Survival of Chinook Salmon Smolts in Sacramento-San Joaquin and Pacific Ocean. In Contributions to the Biology of Central Valley Salmoinds. Fish Bulletin 179, Vol. 2.

Kimmerer, W. 2004. Open water processes of the San Francisco Estuary: from physical forcing to biological responses. *San Francisco Estuary and Watershed Science*, 2(1): 1-142.

Nobriga, M., Z. Hymanson, K. Fleming and C. Ruhl. 2001. Spring 2000 delta smelt salvage and Delta hydrodynamics and an introduction to the Delta Smelt Working Group's decision tree. *IEP Newsletter* 14(2): 42-46.

Nobriga, M., Z. Hymanson R. Oltmann. 2000. Environmental factors influencing the distribution and salvage of young delta smelt: a comparison of factors occurring in 1996 and 1999. *IEP Newsletter* 13(2): 55-65.

San Joaquin River Group – EXH-24 – (6/3/05) Flow Science Inc., Fischer Delta Model Study – Fate of a Conservative Tracer During Water Years 2000-2001.

Excerpt from Public Law 87-874

". . .And provided further, That the Secretary of the Army give consideration during the preconstruction planning for the new Melones project to the advisability of including storage for the regulation of streamflow for the purposes of downstream water quality control."

EXHIBIT "A"

Public Law 87-874

AN ACT

October 23, 1962
[H. R. 13273]

Authorizing the construction, repair, and preservation of certain public works on rivers and harbors for navigation, flood control, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE I—RIVERS AND HARBORS

River and Harbor Act of 1962.

SEC. 101. That the following works of improvement of rivers and harbors and other waterways for navigation, flood control, and other purposes are hereby adopted and authorized to be prosecuted under the direction of the Secretary of the Army and supervision of the Chief of Engineers, in accordance with the plans and subject to the conditions recommended by the Chief of Engineers in the respective reports hereinafter designated: *Provided*, That the provisions of section 1 of the River and Harbor Act approved March 2, 1945 (Public Law Numbered 14, Seventy-ninth Congress, first session), shall govern with respect to projects authorized in this title; and the procedures therein set forth with respect to plans, proposals, or reports for works of improvement for navigation or flood control and for irrigation and purposes incidental thereto, shall apply as if herein set forth in full:

59 Stat. 10.

NAVIGATION

Maine.

Narraguagus River, Maine: House Document Numbered 530, Eighty-seventh Congress, at an estimated cost of $500,000;

Carvers Harbor, Vinalhaven, Maine: Senate Document Numbered 118, Eighty-seventh Congress, at an estimated cost of $205,000;

Searsport Harbor, Maine: House Document Numbered 500, Eighty-seventh Congress, at an estimated cost of $700,000;

Portland Harbor, Maine: House Document Numbered 216, Eighty-seventh Congress, at an estimated cost of $8,340,000;

Kennebunk River, Maine: House Document Numbered 459, Eighty-seventh Congress, at an estimated cost of $270,000;

New Hampshire.

Portsmouth Harbor and Piscataqua River, Maine and New Hampshire: House Document Numbered 482, Eighty-seventh Congress, at an estimated cost of $7,500,000;

Massachusetts.

Gloucester Harbor, Massachusetts: House Document Numbered 341, Eighty-seventh Congress, at an estimated cost of $1,100,000;

Marblehead Harbor, Massachusetts: House Document Numbered 516, Eighty-seventh Congress, at an estimated cost of $1,752,000;

Chelsea Harbor, Massachusetts: House Document Numbered 350, Eighty-seventh Congress, at an estimated cost of $2,843,000;

Dorchester Bay and Neponset River, Massachusetts: Senate Document Numbered 126, Eighty-seventh Congress, at an estimated cost of $7,050,000;

Plymouth Harbor, Massachusetts: Senate Document Numbered 124, Eighty-seventh Congress, at an estimated cost of $1,200,000;

Rhode Island.

Pawtuxet Cove, Rhode Island: House Document Numbered 236, Eighty-seventh Congress, at an estimated cost of $210,000;

New York.

Great Lakes to Hudson River Waterway, New York: River and Harbor Committee Document Numbered 20, Seventy-third Congress, for the further partial accomplishment of the approved plan there is hereby authorized to be appropriated, in addition to sums previously authorized, $1,000,000;

Little Neck Bay, New York: House Document Numbered 510, Eighty-seventh Congress, at an estimated cost of $2,185,000;

struction of the plants herein authorized and their integration with that system shall be made in accordance with preferences expressed in the Federal reclamation laws except that a first preference, to the extent as needed and as fixed by the Secretary of the Interior, but not to exceed 25 per centum of such additional energy, shall be given, under reclamation law, to preference customers in Tuolumne and Calaveras Counties, California, for use in that county, who are ready, able, and willing, within twelve months after notice of availability by the Secretary of the Interior, to enter into contracts for the energy and that Tuolumne and Calaveras County preference customers may exercise their option in the same date in each successive fifth year providing written notice of their intention to use the energy is given to the Secretary not less than eighteen months prior to said dates: *And provided further*, That the Secretary of the Army give consideration during the preconstruction planning for the New Melones project to the advisability of including storage for the regulation of streamflow for the purpose of downstream water quality control.

The Hidden Reservoir, Fresno River, California, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in Senate Document Numbered 37, Eighty-seventh Congress, at an estimated cost of $14,338,000.

The Buchanan Reservoir, Chowchilla River, California, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in Senate Document Numbered 98, Eighty-seventh Congress, at an estimated cost of $13,585,000.

The project for flood protection on Mormon Slough, Calaveras River, California, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in House Document Numbered 576, Eighty-seventh Congress, at an estimated cost of $1,960,000.

RUSSIAN RIVER BASIN

The project for Russian River, Dry Creek, California, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in House Document Numbered 547, Eighty-seventh Congress, at an estimated cost of $42,400,000.

REDWOOD CREEK BASIN

The project for flood protection on Redwood Creek, Humboldt County, California, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in House Document Numbered 497, Eighty-seventh Congress, at an estimated cost of $2,580,000.

LOS ANGELES RIVER BASIN

In addition to previous authorizations, there is hereby authorized to be appropriated the sum of $3,700,000 for the prosecution of the comprehensive plan for the Los Angeles River Basin approved in the Act of August 18, 1941, as amended and supplemented by subsequent Acts of Congress.

55 Stat. 647.

ROGUE RIVER BASIN

The project for the Rogue River, Oregon and California, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in House Document Numbered 566, Eighty-seventh Congress, at an estimated cost of $106,700,000, subject to the conditions of local cooperation specified in said report: *Provided*, That the project is to be located, constructed, and operated to accomplish the benefits as set forth and described in the report and appendixes: *And provided further*, That in the years of short water supply all

Excerpt from Design Memorandum No. 5

New Melones Project
Water Quality Control
June 1965

"Water quality control releases from new Melones storage project will contribute significantly to the solution of the overall pollution problem in the lower San Joaquin River but should not be considered as a complete solution of this problem."

EXHIBIT "B"

DESIGN MEMORANDUM NO. 5 JUNE 1965

NEW MELONES PROJECT

Stanislaus River, California

WATER QUALITY CONTROL

U. S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGN MEMORANDUM NO. 5
NEW MELONES PROJECT
STANISLAUS RIVER, CALIFORNIA
WATER QUALITY CONTROL
JUNE 1965

REVISIONS

Date	New Pages or Drawings
29 Sep 65 1 Feb 66	Revised pages 5 and 6 Revised list of Design Memorandums; revised pages 1, 5 and 7

DESIGN MEMORANDUM NO. 5
NEW MELONES PROJECT
STANISLAUS RIVER, CALIFORNIA

WATER QUALITY CONTROL

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LIST OF CHARTS

ATTACHMENTS

DESIGN MEMORANDUM NO. 5
NEW MELONES PROJECT
STANISLAUS RIVER, CALIFORNIA

WATER QUALITY CONTROL

PERTINENT DATA

1. General data

Location	On Stanislaus River, about 38 miles east of Stockton, California.
Purpose	Flood control, irrigation, power, general recreation, fish and wildlife, and water quality control.
Average annual runoff at damsite	1,130,000 acre-feet
Maximum peak natural flow of record at damsite	102,000 c.f.s.
Maximum peak flow of record below existing dam	62,800 c.f.s.
Drainage area, above dam	897 square miles

2. Reservoir data

Feature	Elev. (ft.)	Area (acres)	Storage capacity (ac.-ft.)	Length of shoreline (miles)	Length of pool (miles)
Minimum power pool	808.0	3,320	310,000	60	15.0
Normal recreation pool	1,021.0	9,705	1,650,000	90	22.0
Gross pool	1,088.0	12,200	2,400,000	100	23.6

3. Dam

Type (tentative)	Earth and rockfill
Maximum height above streambed	600 feet
Crown width and length	20 ft. and 1,500 ft.

PERTINENT DATA (contd)

6. Power facilities .

Installed capacity	150,000 kw.
Number of units	3
Maximum gross head	583 ft.
Minimum gross head	303 ft.
Critical gross head on turbines	466 ft.
Hydraulic capacity of all turbines at critical head	4,470 c.f.s.
Approximate minimum tail water elevation	505 ft.

NEW MELONES PROJECT, STANISLAUS RIVER, CALIFORNIA
DESIGN MEMORANDUM NO. 5
WATER QUALITY CONTROL

1. Authority. - The New Melones Project was authorized by the Flood Control Act of 1944 (Public Law 78-534) and modified by the Flood Control Act of 1962 (Public Law 87-874). The project would consist of a dam, reservoir, and powerplant. Location of the project is shown on chart 1. The dam, about 600 feet high, would provide a reservoir with a gross capacity of 2,400,000 acre-feet. The powerplant would be located immediately below the dam and have a capacity of about 150,000 kilowatts. The project, as presented in the authorizing document (HD No. 453/87/2), would be used for flood control, power, irrigation, recreation, fish and wildlife, and other purposes. Upon completion of construction of the project by the Corps of Engineers, the project will become an integral part of the Central Valley Project and will be operated and maintained by the Bureau of Reclamation. Authority to investigate the need for water quality control is contained in the Federal Water Pollution Control Act Amendments of 1961 (Public Law 87-88, approved 20 July 1961), that provide ". . . in the survey or planning of any reservoirs of the Corps of Engineers, Bureau of Reclamation, or other Federal agency, consideration shall be given to inclusion of storage for regulation of streamflow for the purpose of water quality control. . ." In addition, the 1962 Flood Control Act provides ". . . That the Secretary of the Army give consideration during the preconstruction planning for the New Melones Project to the advisability of including storage for the regulation of streamflow for the purpose of downstream water quality control."

2. Purpose and scope. - This Design Memorandum presents the results of cooperative studies by the Public Health Service, Bureau of Reclamation, and Corps of Engineers of water quality requirements in Stanislaus River and lower San Joaquin River for irrigation, fish and other purposes. These studies were made to determine the feasibility of adding water quality control as a function of the New Melones Project. The Public Health Service report (attachment 1) presents a comprehensive analysis of water quality problems in the Stanislaus and lower San Joaquin Rivers, and establishes water quality objectives which can reasonably be expected from storage and releases of water from the New Melones Project. The report includes the estimated releases which would be required to meet the objectives, and evaluates the water quality benefits which would be credited to the New Melones Project if the objectives were met. It is recognized that there would be a nominal benefit to the water quality in the Sacramento-San Joaquin Delta from any improvement in the quality of water in lower San Joaquin River, however, such improvement is negligible for the purpose of evaluation.

3. Water quality under existing conditions. -

a. Stanislaus River. - The flow Stanislaus River averages 1,125,000 acre-feet per year with the annual distribution of runoff about as follows: 2.7 percent during August, September, and October; 31.6 percent in November through March; and 65.7 percent in April through July. Several reservoir projects have been developed in the basin by Pacific Gas and Electric Company and by local irrigation districts. The major diversions occur at Goodwin Dam where about 520,000 acre-feet are diverted each year for irrigation. Flows in Stanislaus River below Goodwin Dam vary from a few cubic feet per second from return irrigation water to flows of 40,000 c.f.s. or more during flood periods. Floodflows occur between November and June. From June to November, the average flow below Goodwin Dam is usually less than 5 c.f.s. The quality of water in Stanislaus River at Tulloch Reservoir is very high, meeting U.S. Public Health Service drinking water chemical standards in all respects and with adequate treatment, is capable of meeting the physical and bacteriological standards at all times. Below Oakdale, return flows from irrigation and effluent from sewage treatment plants along the river have added solids to the stream which not only increase the dissolved solids in the water but also reduce the dissolved oxygen in the water. The dissolved oxygen concentration (hereafter called DO) in Stanislaus River is over 6 ppm most of the year, however, during the canning season, the DO concentration may drop below 1 ppm. Total dissolved solids in this stream reach, on an annual flow-weighted basis, average about 40 ppm. In the lower reaches, near the confluence with the San Joaquin River, the average annual total dissolved solids concentration (hereafter called TDS) has varied from 60 to 167 ppm, with a medium of 140 ppm during years of normal runoff. During periods of low flow in 1964 (July through October), the TDS concentration reached a maximum of 226 ppm, with the average about 200 ppm. This is a very good quality of water for irrigation use, for which purpose most of this water will be consumptively used. With New Melones in operation, it is believed that low flow conditions in lower Stanislaus River would remain essentially the same as at the present time with the exception of supplementary releases to be made specifically for fishery purposes. The following minimum flows below Goodwin Dam would be provided by release of water from New Melones Dam.

Period	Flow	
	Normal year	Dry year
1 Oct to 31 Dec	200 c.f.s.	150 c.f.s.
1 Jan to 31 May	125 c.f.s.	100 c.f.s.
1 Jun to 30 Sep	100 c.f.s.	60 c.f.s.
Total annual flow	98,000 acre-feet	69,000 acre-feet

It was assumed that water released from New Melones would have a TDS concentration of 50 ppm, which is about 20 percent higher than now measured at Tulloch Reservoir. The Public Health Service studies indicate that the dissolved oxygen, with adequate treatment of wastes discharged to the lower reach of the river, would exceed 5 ppm until about year 2000 when releases to maintain an adequate DO concentration would be required.

b. San Joaquin River. - The average annual unimpaired runoff of the San Joaquin River at the Vernalis gage is about 5,560,000 acre-feet. Considering the reduction due to diversions with the present and proposed developments on Tuolumne, Merced, Chowchilla and Fresno Rivers, it is estimated that the flow at Vernalis gage would be about 1,890,000 acre-feet per year. Flow from the Stanislaus River now comprises about 25 percent of the mean annual flow at Vernalis gage, and during the low-flow period from 1 to 15 percent of flow at this gage. The summer flows in lower San Joaquin River are comprised mainly of irrigation return flows and, during dry years, there is increased upstream re-use of the water for irrigation. The TDS concentration is highest in periods of low flow; during the unusually dry year of 1961, the concentration reached 1,220 ppm and was not under 780 ppm for a 120-day period from early June to early October. It is expected that future quality of water in lower San Joaquin River will remain about the same as present conditions.

c. Ground water. - The California Department of Water Resources, in cooperation with the U. S. Geological Survey and several county and local agencies, has conducted an extensive continuing survey for determining the quality of ground water throughout the State of California. Results of that survey, published periodically in Department of Water Resources Bulletin No. 66, indicate that ground water in the Stanislaus River Basin has an average TDS concentration of 200 ppm and is of good quality. All the towns and cities along Stanislaus River obtain their municipal supply from ground water supplies, and some irrigation water is obtained from the ground water supply. It is estimated that about 130,000 acre-feet is pumped annually and that the storage capacity of the ground water reservoir is probably in excess of 1,000,000 acre-feet. Since the ground water has not been overly developed, a high water table has prevailed for several years, which is responsible in part for accretions to Stanislaus River below Goodwin Dam. No studies have been made of anticipated future use of ground water, however, considering the large available supply and the probability of adequate treatment of municipal wastes in the future, it is believed that ground water will remain essentially the same quality as under present conditions.

4. Objectives of water quality control. - The extent of quality control to be provided at New Melones Dam would depend principally on establishment of acceptable levels of TDS and DO concentrations in

downstream reaches of the Stanislaus River and in the San Joaquin River below the confluence of the two streams that could reasonably be expected to be attained by use of New Melones Project and that would be economically justified. The agricultural water users along lower San Joaquin River need a relatively high quality water. The Public Health Service has determined that a mean monthly concentration of 500 ppm TDS would permit continuation of present cropping patterns without an increase in operating costs or decrease in yield. In view of the above, one of the objectives of water quality control would be to provide releases from New Melones Reservoir that would prevent TDS concentrations in the San Joaquin River at Vernalis gage from exceeding 500 ppm. A second objective would be to provide sufficient DO concentrations to support a warm water fishery in the downstream channels. The California State Department of Fish and Game considers a minimum DO concentration of 5 ppm necessary to maintain a stream fishery, and the Central Valley Regional Water Pollution Control Board also uses 5 ppm as a minimum allowable level. This 5 ppm DO concentration was selected as the objective level for this study.

5. Water requirements. - To determine the water requirements necessary to meet the foregoing objectives, the Public Health Service investigated the dissolved solids conditions in the San Joaquin River and the DO concentration in the Stanislaus River. In cooperation with Public Health Service, the Bureau of Reclamation prepared operation studies of the New Melones Project to meet the objective of 500 ppm, or less, of TDS criteria. The flow regulation required to control the concentration of TDS was determined using hydrologic data developed by the Bureau of Reclamation for the historical period 1921-1946, adjusted to project conditions. These data indicated the magnitude of the adjusted historical flows of San Joaquin River at Vernalis gage on a month by month basis and, by use of a flow versus TDS curve, the TDS concentrations were derived for lower San Joaquin River under project conditions. Appendix A of the PHS report describes the procedures used in determining the needs for water quality control. Bureau of Reclamation studies show that an average annual release of 10,900 acre-feet would be required to control the TDS concentration at Vernalis gage to 500 ppm, or less. This release would be in addition to other project releases, including those for fishery purposes, and would vary from 0 to 48,500 acre-feet per year. The PHS study of DO was projected over a 100-year period by 25-year increments to the year 2075, and considered future population and industrial growth, and adequate treatment of sewage. Such study, covered in detail in appendix A of the PHS report, indicates the following increasing releases required at invervals to maintain the desired DO levels in lower Stanislaus River. These releases would be in addition to those required for fish and for control of dissolved solids in lower San Joaquin River.

Year	Required release in acre-feet
1975	240
2000	380
2025	4,100
2050	13,300
2075	25,100

6. Effect of water quality releases on authorized project purposes. - Releases for water quality control would not enhance the downstream trout fishery. Due to the fact that water for irrigation could be diverted from the San Joaquin Delta for delivery via the Delta-Mendota Canal of the Central Valley Project or the California Aqueduct, and water quality control releases from New Melones Dam would reach the Delta, there would not be a loss to irrigation, although some additional re-regulation or exchange of water between other projects may be necessary to achieve the desired result. Because of the change in water release patterns imposed by requirements for water quality releases, the head on the New Melones Powerplant would be slightly reduced with a minor detrimental effect on power production. Also, routing of irrigation water to the Delta then delivering via canals would increase pumping costs. The Bureau of Reclamation has estimated that, with the inclusion of water quality control as a project purpose, the equivalent annual loss in power would be about 4,100,000 kw.-hr. of saleable energy and about 1,275 kw. of dependable capacity. Evaluated at 2.88 mills per kw.-hr. of energy and $16.85 per kw. of dependable capacity the losses would result in a decrease of about $33,000 in the average annual equivalent power benefits accruing to the New Melones Project. Except for the minor decrease in power accomplishments of the New Melones Project, modification of the project operation to accommodate the water quality control purpose would have no adverse effect on the purposes for which the project was authorized. The inclusion of water quality control would not delay the realization of project benefits since the project is now being designed and there would not be changes in the design due to water quality control which would delay construction of the project.

7. Benefits. - The Public Health Service, in cooperation with the Bureau of Reclamation and the U. S. Fish and Wildlife Service, has evaluated the benefits which would accrue to water quality control at New Melones Project. The benefit to the downstream fishery was evaluated as the additional number of fisherman-days of use which would be made possible by eliminating periods of low DO concentration with specific water quality control releases. It was assumed that the fishery would not be damaged with 5 ppm of DO but would be completely destroyed if the DO concentration dropped to 3 ppm. The rate of recovery for the damaged fishery was assumed to be as much as 50 percent of the fishery in a single year; therefore, complete destruction would be recovered in two years. On the basis of the above, the preservation of the fishery resource would result in an increase in use of the expected downstream fishery of 300 fisherman-days by 1975 and 201,000 by 2075. Evaluated at $1.00 per fisherman-day, and determining the present value of future benefits,

the Public Health Service report shows an annual equivalent benefit of $26,000. The benefits accruing to water quality control for irrigation were evaluated as the cost of providing water from another source to accomplish the same result. A value of $20 per acre-foot was used as the cost of this replacement water. This water might be obtained from either the Central Valley Project or the California Aqueduct at a cost ranging from a few dollars to $60 per acre-foot. Since the water would be needed on an intermittent basis in odd amounts, the $20 per acre-foot used is believed to be a reasonable unit value. Applying this unit value to the volume of water needed over the next 100 years, the Public Health Service report presents an average annual water quality benefit to irrigation of $158,000, for a total annual equivalent benefit to water quality control of $184,000. Details of these benefit determinations are contained in the Public Health Service report. In addition to the evaluated benefits, certain intangible benefits would accrue to water quality control. The maintenance and improvement of water quality in Stanislaus River would enhance the stream for recreational use other than fishing. The same is true along lower San Joaquin River and, to a lesser degree, in the Delta. Minor benefits would also accrue to the resident and anadromous fishery in the streams, as well as to the municipal and industrial users of groundwater. Releases for water quality control in lower San Joaquin River would alleviate, to a small degree, the pollution problems in the Delta.

8. Cost of providing water quality control. - There would be no direct costs of providing water quality control of the magnitude proposed herein. There would be no specific facilities required for water quality control, and since there would be multiple use of the storage space in the reservoir and the released water would be used for other purposes, there would be no incremental construction costs associated with inclusion of water quality control as a project purpose. The only operational requirement would be to make the additional releases necessary to meet the downstream objectives of water quality, which would occur only during the low-flow months of the very dry years.

9. Beneficiaries. - The Public Health Service report indicates the beneficiaries of water quality control operation would be widespread. The following is quoted from the report.

> Benefits resulting from providing water for water quality control in the New Melones Project will be widespread. They will accrue to hundreds of thousands of people utilizing, for a wide variety of purposes, the reach of the Stanislaus River from the proposed damsite to its mouth and the reach of the San Joaquin River from Vernalis to its mouth, a total stream distance of 148 miles. The estimated irrigation diversions from the San Joaquin River in the year 2025 of 1,000,000 acre-feet is equivalent to a full supply of irrigation water for about 330,000 acres. Recreational and sport fishery use of the Sacramento-San Joaquin Delta is currently estimated at 2,780,000 recreation days annually and

is projected to reach 13,878,000 recreation days annually by the year 2020. Over half of this recreational use may be attributable to the San Joaquin River portion of the Delta. Although it is impossible to identify benefits accruing to any single individual, such benefits are likely to be very small. The reaches of the streams affected provide outdoor recreation for visitors residing in other areas of California and in other states of the Nation as well as local residents. Agricultural and industrial commodities produced in the area are distributed throughout the Nation.

10. Justification. - Inclusion of water quality control as a function in the New Melones Project would provide additional benefits amounting to $184,000 per year and would decrease other project accomplishments by only $33,000 annually, leaving a net benefit to the project of $151,000 per year. As indicated in a preceding paragraph, the cost associated with providing this benefit would be negligible

11. Views of Public Health Service. - The Public Health Service report contains the following conclusions:

a. The population of the urbanized areas in the Stanislaus River Basin study area is projected to increase to 53,000 by the year 2000 and to 235,000 by 2075. Population of Stanislaus and San Joaquin Counties is projected to increase to 1,323,000 by 2000 and to 4,739,000 by 2075.

b. The initial mean annual draft on storage water in New Melones Reservoir, required to maintain the dissolved oxygen concentration in the Stanislaus River at or above 5 mg/l and to limit the concentration of total dissolved solids in the San Joaquin River at Vernalis to 500 mg/l on a mean monthly basis, during the irrigation season, is 11,100 acre-feet. The increasing municipal and industrial waste load (after adequate treatment is provided) will cause the mean annual draft on storage water to increase to 15,000 acre-feet by the year 2025 and to 36,000 acre-feet by 2075. These quantities are in addition to fish releases.

c. With provision of storage for streamflow regulation for water quality control purposes, significant economic and social benefits will accrue to the large and growing population using Stanislaus and San Joaquin River waters for fishing, recreation, agricultural, municipal, and industrial purposes.

d. Water quality control benefits evaluated in monetary terms, which will accrue to the fishery and agricultural interests during the 100-year evaluation period, are estimated to have a total present worth of $5,617,000. The annual equivalent value of these benefits in $184,000.

e. Significant intangible water quality control benefits will also accrue to recreationists using the Stanislaus River and to sport and commercial fishermen, recreationists, industrial and municipal users of the lower San Joaquin River waters.

f. Water quality control releases from New Melones storage project will contribute significantly to the solution of the overall pollution problem in the lower San Joaquin River but should not be considered as a complete solution of this problem.

g. In view of the substantial benefits which will result from storage water releases from New Melones Reservoir, it is recommended that provision for such releases, to the extent feasible and in harmony with other uses of the project, be included in New Melones Project.

h. Benefits resulting from providing storage water for quality control will accrue to hundreds of thousands of people utilizing, for a wide variety of purposes, the waters of the Stanislaus and San Joaquin Rivers. Benefits are, therefore, considered widespread and in harmony with the intent of the Federal Water Pollution Control Act.

i. Municipal and industrial water use, along the Stanislaus River below New Melones, is projected to increase from 3 million gallons per day (3,000 acre-feet/year) in 1960 to 72 million gallons per day (81,000 acre-feet/year) in 2075. The portion of this additional water need that develops in the Stanislaus River Basin should be supplied by the New Melones Project unless a study indicates that ground water resources, of satisfactory quality, and/or decreasing agricultural usage will satisfy this anticipated need.

12. Views of the Bureau of Reclamation. - The Regional Director of the Bureau of Reclamation has reviewed the Public Health Service

report draft and by letter dated 19 March 1965, included as attachment 2, expressed his view that water quality control is needed both in the Stanislaus and San Joaquin Rivers, and that operation of New Melones Reservoir could materially improve present conditions. He recommended that water quality objectives be incorporated into the New Melones Project to limit the total dissolved solids in lower San Joaquin River to 500 ppm on a mean monthly basis and to maintain a dissolved oxygen level of at least 5.0 mg/l in the Stanislaus River, providing these objectives will not require releases exceeding 70,000 acre-feet in any one year.

13. Views of local interests. - A local committee, composed of representatives of irrigation and reclamation districts located along both sides of the lower San Joaquin River, reviewed a draft of the Public Health Service report on water quality control for the New Melones Project. The views of this committee were contained in a letter dated 8 March 1965, to the Regional Director of the Bureau of Reclamation. That letter is an inclosure to the Bureau of Reclamation letter included as attachment 2. The committee expressed its full accord and approval of the following findings and conclusions in the draft of report: (a) that a certain amount of storage will be needed for water quality control in the New Melones Reservoir so that, when released along with other amounts required to be made available for downstream prior vested water rights and for fish and wildlife benefits, the TDS of the water at Vernalis gaging station on San Joaquin River will not exceed 500 ppm; (b) that the water quality benefits are of sufficient magnitude that these releases should be made from storage as needed for water quality control; and (c) that the benefits are so widespread that, in accordance with the intent of the Water Pollution Control Act (PL 87-88), the costs should be non-reimbursable.

14. Conclusions and recommendations. - Based upon the studies and data presented herein, it is concluded that:

a. There will be continued need in the future for water quality control in channels downstream from New Melones Project in addition to adequate treatment of wastes at the source.

b. Releases of water for water quality control will have only a minor effect on other accomplishments and benefits of the project.

c. There will be a substantial increase in benefits of the project from water quality control without increase in project cost.

d. Water quality control has sufficient economic justification to be included as a project purpose.

e. Due to the widespread and diverse beneficiaries of water quality control and the resulting impracticability of assigning

repayment of an equitable share of any costs that would be allocated to this activity as a project function, any such costs should be non-reimbursable.

15. In view of the foregoing, it is recommended that:

a. The New Melones Project include water quality control as a project purpose.

b. The water quality objectives be established as follows: (1) In San Joaquin River immediately below the mouth of the Stanislaus River total dissolved solids are to be limited to less than 500 parts per million, and (2) in Stanislaus River dissolved oxygen concentration is to be maintained to a level of at least 5 miligrams per liter.

c. Releases from New Melones Dam for water quality control purposes be made as necessary to maintain the objectives listed above, but not in excess of 70,000 acre-feet in any one year.

d. The cost allocated to the water quality control function be considered non-reimbursable.

ADDRESS ALL COMMUNICATIONS TO THE REGIONAL DIRECTOR

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

REGIONAL OFFICE, REGION 2
P. O. BOX 2511
SACRAMENTO, CALIFORNIA 95811
(TOWN AND COUNTRY AREA)

IN REPLY
REFER TO: 2-720

MAR 19 1965

Colonel Robert E. Mathe
District Engineer
U. S. Army Engineer District, Sacramento
Corps of Engineers
P. O. Box 1739
Sacramento, California 95814

Dear Colonel Mathe:

For more than a year, your staff and mine, in cooperation with the U. S. Public Health Service and local interest, have been considering the need for and advisability of incorporating water quality control into the New Melones Project. This letter is to give you our views on this subject.

In our letter of September 1, 1964, which transmitted our hydraulic studies to the U. S. Public Health Service, copy of which was furnished to you, we said, "The study shows the releases required from [illegible] quality at Vernalis not to exceed [illegible]sis. This appears to us to be a one which is practical of attainment [illegible] thing in our subsequent studies or in [illegible]port of the Health Service would lead

In terms of water, incorporation of water quality will not effect the project's yield.

[illegible], we have evaluated the effects that the incorporation of the water quality objectives described in the Health Service report would have upon the conservation and power accomplishments of the Unit. These effects are very small.

In terms of water, incorporation of water quality will not effect the project's yield. The New Melones Unit will increase the yield of the Central Valley Project by about 285,000 acre-feet annually, regardless of whether or not quality control is included.

EXHIBIT "C"

In terms of its effects on power, the addition of water quality control to the New Melones Unit as a project function will reduce the power accomplishments which could be derived without quality control. This reduction results from two principal effects. First, the change in water release patterns will decrease slightly the head on the New Melones Powerplant during the critical dry period. Second, there will be an increase in future Central Valley Project pumping requirements caused by the routing of the quality releases into the Delta. We estimate that the annual equivalent of the power benefits foregone as a result of these effects over your 100-year period of analysis would be about $38,400 annually.

I recommend that the following water quality objectives be incorporated into the New Melones Unit with the stipulation that, during its 50-year repayment period, these objectives will not require releases exceeding 70,000 acre-feet in any one year

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needed both in the Stanislaus
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s. This position is consistent with the conclusion of the U. S. Public Health Service that "Water quality releases from New Melones storage project will contribute significantly to the solution of the overall pollution problem in the lower San Joaquin River but should not be considered as a complete solution of this problem".

Accordingly, I recommend that the following water quality objectives be incorporated into the New Melones Unit with the stipulation that, during its 50-year repayment period, these objectives will not require releases exceeding 70,000 acre-feet in any one year as shown in the Public Health Service's report: (1) To limit the total dissolved solids in the flows of the San Joaquin River at Vernalis to 500 parts per million on a mean monthly basis; and (2) To maintain a dissolved oxygen level of at least 5.0 milligrams per liter in the Stanislaus River.

Excerpt from Memorandum of Understanding between
Bureau of Reclamation and
Central Valley Regional Water Quality Control Board
July 1969

"The Bureau shall, in addition to fishery requirements, release from New Melones Dam, for water quality purposes in the downstream reaches of the Stanislaus River and in the San Joaquin River below the confluence of the two rivers, flows necessary to maintain the objectives listed below [500 ppm TDS], **but not to exceed 70,000 acre feet in any one year."** (emphasis added)

EXHIBIT "D"

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
NEW MELONES UNIT
CENTRAL VALLEY PROJECT, CALIFORNIA

MEMORANDUM OF AGREEMENT FOR THE PROTECTION AND ENHANCEMENT OF THE WATER QUALITY OF THE STANISLAUS AND SAN JOAQUIN RIVERS AS AFFECTED BY THE NEW MELONES PROJECT UNDER WATER RIGHT APPLICATION 19304 OF THE UNITED STATES OF AMERICA AND BY MUNICIPAL AND INDUSTRIAL WASTES

WHEREAS, THE UNITED STATES INTENDS TO CONSTRUCT A DAM AND RESERVOIR IN AND ACROSS THE STANISLAUS RIVER AT A POINT UPSTREAM FROM OAKDALE, STANISLAUS COUNTY, CALIFORNIA, AND WILL UTILIZE SAID DAM AND RESERVOIR AND THEIR RELATED WORKS FOR THE DIVERSION AND STORAGE OF WATER OF THE STANISLAUS RIVER PRIMARILY FOR FLOOD CONTROL, DOMESTIC, IRRIGATION, RECREATION, MUNICIPAL AND INDUSTRIAL, FISH CULTURE, AND WATER QUALITY CONTROL PURPOSES AND FOR THE GENERATION OF HYDROELECTRIC ENERGY; SAID DAM TO BE KNOWN AS NEW MELONES DAM AND THE RESERVOIR CREATED THEREBY TO BE KNOWN AS NEW MELONES RESERVOIR; AND

WHEREAS, THE UNITED STATES HAS FILED AN APPLICATION AND IS SEEKING TO OBTAIN A PERMIT AND LICENSE TO APPROPRIATE AND APPLY TO BENEFICIAL USE WATERS OF THE STANISLAUS RIVER AND ITS TRIBUTARIES IN CONNECTION WITH THE OPERATION OF THE NEW MELONES DAM AND RESERVOIR, SUCH APPLICATION BEING DESIGNATED IN THE FILES OF THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD AS NUMBER 19304; AND

WHEREAS, THE CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD WITH RESPECT TO ITS REGION HAS THE DUTY TO OBTAIN COORDINATED ACTION IN WATER QUALITY CONTROL AND IN THE ABATEMENT, PREVENTION AND CONTROL OF WATER POLLUTION AND NUISANCE; AND

WHEREAS, THE BENEFICIAL USES OF THE STANISLAUS AND SAN JOAQUIN RIVERS ARE DEPENDENT UPON WATER QUALITY CONDITIONS, AND THE PARTIES RECOGNIZE THAT WATER QUALITY CONDITIONS MAY BE PROTECTED AND ENHANCED BY FACILITIES CONSTRUCTED AND OPERATED UNDER A PERMIT AND LICENSE ISSUED ON APPLICATION 19304; AND

WHEREAS, AUTHORITY TO INVESTIGATE THE NEED FOR WATER QUALITY CONTROL IS CONTAINED IN THE FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1961 (PUBLIC LAW 87-88, APPROVED JULY 20, 1961) WHICH PROVIDES IN PART

> "...IN THE SURVEY OR PLANNING OF ANY RESERVOIRS OF THE CORPS OF ENGINEERS, BUREAU OF RECLAMATION, OR OTHER FEDERAL AGENCY, CONSIDERATION SHALL BE GIVEN TO INCLUSION OF STORAGE FOR REGULATION OF STREAMFLOW FOR THE PURPOSE OF WATER QUALITY CONTROL..."

AND, IN ADDITION, THE 1962 FLOOD CONTROL ACT AUTHORIZING THE NEW MELONES PROJECT (PUBLIC LAW 87-874) PROVIDES

> "...THAT THE SECRETARY OF THE ARMY GIVE CONSIDERATION DURING THE PRECONSTRUCTION PLANNING FOR THE NEW MELONES PROJECT TO THE ADVISABILITY OF INCLUDING STORAGE FOR THE REGULATION OF STREAMFLOW FOR THE PURPOSE OF DOWNSTREAM WATER QUALITY CONTROL...;"

AND

WHEREAS, COOPERATIVE STUDIES BY THE PUBLIC HEALTH SERVICE, BUREAU OF RECLAMATION, AND CORPS OF ENGINEERS OF WATER QUALITY REQUIREMENTS IN STANISLAUS RIVER AND LOWER SAN JOAQUIN RIVER FOR IRRIGATION, FISH, AND OTHER PURPOSES WERE MADE DEMONSTRATING THE FEASIBILITY OF ADDING WATER QUALITY CONTROL AS A FUNCTION OF THE NEW MELONES PROJECT; AND

WHEREAS, THE CONSTRUCTION OF THE NEW MELONES DAM BY THE UNITED STATES AND OPERATION, AS PROVIDED IN THIS AGREEMENT, WILL ASSIST IN PROVIDING PROTECTION AND ENHANCEMENT OF THE QUALITY OF THE WATERS OF THE STANISLAUS AND SAN JOAQUIN RIVERS AND IT IS MUTUALLY BENEFICIAL AND DESIRABLE THAT THE PARTIES FORMALIZE THEIR UNDERSTANDING BY THIS MEMORANDUM OF OPERATING AGREEMENT:

NOW, THEREFORE, THE UNITED STATES ACTING BY AND THROUGH THE BUREAU OF RECLAMATION, HEREINAFTER CALLED THE BUREAU, ITS SUCCESSORS AND ASSIGNS, AND THE STATE OF CALIFORNIA, ACTING BY AND THROUGH ITS CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD, HEREINAFTER CALLED THE REGIONAL BOARD, ITS SUCCESSORS AND ASSIGNS, AND IN CONSIDERATION OF THE PREMISES CONTAINED AGREE AS FOLLOWS:

1. THE BUREAU SHALL, IN ADDITION TO FISHERY REQUIREMENTS, RELEASE FROM NEW MELONES DAM, FOR WATER QUALITY CONTROL PURPOSES IN THE DOWNSTREAM REACHES OF THE STANISLAUS RIVER AND IN THE SAN JOAQUIN RIVER BELOW THE

CONFLUENCE OF THE TWO RIVERS, FLOWS NECESSARY TO MAINTAIN THE OBJECTIVES LISTED BELOW, BUT NOT IN EXCESS OF 70,000 ACRE-FEET IN ANY ONE YEAR. RELEASES OF WATER FOR QUALITY CONTROL PURPOSES SHALL BE SCHEDULED TO MAINTAIN THE OXYGEN LEVEL AT OR ABOVE 5 MILLIGRAMS PER LITER (MG/L) IN THE STANISLAUS RIVER AND THE LEVEL OF TOTAL DISSOLVED SOLIDS NOT TO EXCEED A MEAN MONTHLY CONCENTRATION OF 500 MG/L IN THE SAN JOAQUIN RIVER IMMEDIATELY BELOW THE MOUTH OF THE STANISLAUS RIVER. PROVIDED: THAT IF HYDROLOGIC OR OTHER CONDITIONS PREVENT MAINTENANCE OF A 500 MG/L TDS LEVEL ON A MEAN MONTHLY BASIS DURING THE ENTIRE YEAR IN THE SAN JOAQUIN RIVER IMMEDIATELY BELOW THE MOUTH OF THE STANISLAUS RIVER, OPERATIONAL RELEASES OF THE WATER QUALITY RESERVATION WILL BE RESTRICTED TO THE IRRIGATION SEASON IN ACCORDANCE WITH IRRIGATIONISTS' NEEDS.

2. THE BUREAU SHALL MAKE ALL REASONABLE EFFORTS TO PERFECT AND PROTECT WATER RIGHTS NECESSARY FOR THE WATER QUALITY RESERVATION AND FOR WATER QUALITY OPERATIONAL PURPOSES.

3. THE REGIONAL BOARD SHALL MAKE ALL REASONABLE EFFORTS TO SUPPORT THE BUREAU TO OBTAIN AND PROTECT WATER RIGHTS FOR THE WATER QUALITY RESERVATION OF THIS PROJECT AND TO PROTECT THE WATER RELEASED FOR WATER QUALITY CONTROL PURPOSES.

4. SHOULD THE BUREAU ASSIGN, CONVEY OR OTHERWISE DISPOSE OF ANY INTEREST IN THIS PROJECT OR RIGHTS PURSUANT TO APPLICATION 19304, SUCH DISPOSITION SHALL EXPRESSLY BE MADE SUBJECT TO THE PROVISIONS OF THIS AGREEMENT.

5. THE BUREAU AND THE REGIONAL BOARD HEREBY AGREE THAT THE PROVISIONS OF THIS AGREEMENT SHOULD BE INCLUDED BY WAY OF REFERENCE OR OTHERWISE IN ANY PERMIT OR LICENSE BY THE STATE WATER RESOURCES CONTROL BOARD OF CALIFORNIA PURSUANT TO WATER RIGHT APPLICATION 19304.

DATED: THIS 2 DAY OF July, 1969.

UNITED STATES BUREAU OF RECLAMATION

By _____
REGIONAL DIRECTOR, REGION 2

CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

By _____
CHAIRMAN, CENTRAL VALLEY REGIONAL BOARD

SENATE ENROLLED VERSION OF HR 2828
LANGUAGE REGARDING NEW MELONES

(ii) ACTIONS TO INCREASE PUMPING- Actions to increase pumping shall be accomplished in a manner consistent with the Record of Decision requirement to avoid redirected impacts and adverse impacts to fishery protection and with any applicable Federal or State law that protects--

(I) water diversions and use (including avoidance of increased costs of diversion) by in-Delta water users (including in-Delta agricultural users that have historically relied on water diverted for use in the Delta);

(II) water quality for municipal, industrial, agricultural, and other uses; and

(III) water supplies for areas of origin.

(D) PROGRAM TO MEET STANDARDS-

(i) IN GENERAL- Prior to increasing export limits from the Delta for the purposes of conveying water to south-of-Delta Central Valley Project contractors or increasing deliveries through an intertie, the Secretary shall, not later than 1 year after the date of enactment of this Act, in consultation with the Governor, develop and initiate implementation of a program to meet all existing water quality standards and objectives for which the Central Valley Project has responsibility.

(ii) MEASURES- In developing and implementing the program, the Secretary shall include, to the maximum extent feasible, the measures described in clauses (iii) through (vii).

(iii) RECIRCULATION PROGRAM- The Secretary shall incorporate into the program a recirculation program to provide flow, reduce salinity concentrations in the San Joaquin River, and reduce the reliance on the New Melones Reservoir for meeting water quality and fishery flow objectives through the use of excess capacity in export pumping and conveyance facilities.

(iv) BEST MANAGEMENT PRACTICES PLAN-

(I) IN GENERAL- The Secretary shall develop and implement, in coordination with the State's programs to improve water quality in the San Joaquin River, a best management practices plan to reduce the water quality impacts of the discharges from wildlife refuges that receive water from the Federal Government and discharge salt or other constituents into the San Joaquin River.

(II) COORDINATION WITH INTERESTED PARTIES- The plan shall be developed in coordination with interested parties in the San Joaquin Valley and the Delta.

EXHIBIT "E"

(III) COORDINATION WITH ENTITIES THAT DISCHARGE WATER- The Secretary shall also coordinate activities under this clause with other entities that discharge water into the San Joaquin River to reduce salinity concentrations discharged into the River, including the timing of discharges to optimize their assimilation.

(v) ACQUISITION OF WATER- The Secretary shall incorporate into the program the acquisition from willing sellers of water from streams tributary to the San Joaquin River or other sources to provide flow, dilute discharges of salt or other constituents, and to improve water quality in the San Joaquin River below the confluence of the Merced and San Joaquin Rivers, and to reduce the reliance on New Melones Reservoir for meeting water quality and fishery flow objectives.

(vi) PURPOSE- The purpose of the authority and direction provided to the Secretary under this subparagraph is to provide greater flexibility in meeting the existing water quality standards and objectives for which the Central Valley Project has responsibility so as to reduce the demand on water from New Melones Reservoir used for that purpose and to assist the Secretary in meeting any obligations to Central Valley Project contractors from the New Melones Project.

(vii) UPDATING OF NEW MELONES OPERATING PLAN- The Secretary shall update the New Melones operating plan to take into account, among other things, the actions described in this title that are designed to reduce the reliance on New Melones Reservoir for meeting water quality and fishery flow objectives, and to ensure that actions to enhance fisheries in the Stanislaus River are based on the best available science.

(F) **NEW MELONES RESERVOIR**-

(i) IN GENERAL- In addition to the other authorizations granted to the Secretary by this title, the Secretary shall acquire water from willing sellers and undertake other actions designed to decrease releases from the New Melones Reservoir for meeting water quality standards and flow objectives for which the Central Valley Project has responsibility to assist in meeting allocations to Central Valley Project contractors from the New Melones Project.

(ii) PURPOSE- The authorization under this subparagraph is solely meant to add flexibility for the Secretary to meet any obligations of the Secretary to the Central Valley Project contractors from the New Melones Project by reducing demand for water dedicated to meeting water quality standards in the San Joaquin River.

(iii) FUNDING- Of the amounts authorized to be appropriated under section 109, not more than $30,000,000 may be expended to carry out clause (i).

(G) RECIRCULATION OF EXPORT WATER- Funds may be used to conduct feasibility studies, evaluate, and, if feasible, implement the recirculation of export water to reduce salinity and improve dissolved oxygen in the San Joaquin River.

H. R. 2828

One Hundred Eighth Congress of the United States of America

AT THE SECOND SESSION

Begun and held at the City of Washington on Tuesday, the twentieth day of January, two thousand and four

An Act

To authorize the Secretary of the Interior to implement water supply technology and infrastructure programs aimed at increasing and diversifying domestic water resources.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the "Water Supply, Reliability, and Environmental Improvement Act".

(b) TABLE OF CONTENTS.—The table of contents of this Act is as follows:

TITLE I—CALIFORNIA WATER SECURITY AND ENVIRONMENTAL ENHANCEMENT

SEC. 101. SHORT TITLE.

This title may be cited as the "Calfed Bay-Delta Authorization Act".

SEC. 102. DEFINITIONS.

In this title:

(1) CALFED BAY-DELTA PROGRAM.—The terms "Calfed Bay-Delta Program" and "Program" mean the programs, projects, complementary actions, and activities undertaken through coordinated planning, implementation, and assessment activities of the State agencies and Federal agencies as set forth in the Record of Decision.

(2) CALIFORNIA BAY-DELTA AUTHORITY.—The terms "California Bay-Delta Authority" and "Authority" mean the California Bay-Delta Authority, as set forth in the California Bay-Delta Authority Act (Cal. Water Code § 79400 et seq.).

(3) DELTA.—The term "Delta" has the meaning given the term in the Record of Decision.

(4) ENVIRONMENTAL WATER ACCOUNT.—The term "Environmental Water Account" means the Cooperative Management Program established under the Record of Decision.

(5) FEDERAL AGENCIES.—The term "Federal agencies" means—

(A) the Department of the Interior, including—
(i) the Bureau of Reclamation;
(ii) the United States Fish and Wildlife Service;
(iii) the Bureau of Land Management; and
(iv) the United States Geological Survey;
(B) the Environmental Protection Agency;
(C) the Army Corps of Engineers;
(D) the Department of Commerce, including the National Marine Fisheries Service (also known as "NOAA Fisheries");
(E) the Department of Agriculture, including—
(i) the Natural Resources Conservation Service; and
(ii) the Forest Service; and
(F) the Western Area Power Administration.

(6) FIRM YIELD.—The term "firm yield" means a quantity of water from a project or program that is projected to be available on a reliable basis, given a specified level of risk, during a critically dry period.

(7) GOVERNOR.—The term "Governor" means the Governor of the State of California.

(8) RECORD OF DECISION.—The term "Record of Decision" means the Calfed Bay-Delta Program Record of Decision, dated August 28, 2000.

(9) SECRETARY.—The term "Secretary" means the Secretary of the Interior.

(10) STATE.—The term "State" means the State of California.

(11) STATE AGENCIES.—The term "State agencies" means—
(A) the Resources Agency of California, including—
(i) the Department of Water Resources;
(ii) the Department of Fish and Game;
(iii) the Reclamation Board;
(iv) the Delta Protection Commission;
(v) the Department of Conservation;
(vi) the San Francisco Bay Conservation and Development Commission;
(vii) the Department of Parks and Recreation; and
(viii) the California Bay-Delta Authority;
(B) the California Environmental Protection Agency, including the State Water Resources Control Board;
(C) the California Department of Food and Agriculture; and
(D) the Department of Health Services.

SEC. 103. BAY DELTA PROGRAM.

(a) IN GENERAL.—

(1) RECORD OF DECISION AS GENERAL FRAMEWORK.—The Record of Decision is approved as a general framework for addressing the Calfed Bay-Delta Program, including its components relating to water storage, ecosystem restoration, water supply reliability (including new firm yield), conveyance, water use efficiency, water quality, water transfers, watersheds, the Environmental Water Account, levee stability, governance, and science.

(2) REQUIREMENTS.—

(A) IN GENERAL.—The Secretary and the heads of the Federal agencies are authorized to carry out the activities described in subsections (c) through (f) consistent with—

(i) the Record of Decision;

(ii) the requirement that Program activities consisting of protecting drinking water quality, restoring ecological health, improving water supply reliability (including additional storage, conveyance, and new firm yield), and protecting Delta levees will progress in a balanced manner; and

(iii) this title.

(B) MULTIPLE BENEFITS.—In selecting activities and projects, the Secretary and the heads of the Federal agencies shall consider whether the activities and projects have multiple benefits.

(b) AUTHORIZED ACTIVITIES.—The Secretary and the heads of the Federal agencies are authorized to carry out the activities described in subsections (c) through (f) in furtherance of the Calfed Bay-Delta Program as set forth in the Record of Decision, subject to the cost-share and other provisions of this title, if the activity has been—

(1) subject to environmental review and approval, as required under applicable Federal and State law; and

(2) approved and certified by the relevant Federal agency, following consultation and coordination with the Governor, to be consistent with the Record of Decision.

(c) AUTHORIZATIONS FOR FEDERAL AGENCIES UNDER APPLICABLE LAW.—

(1) SECRETARY OF THE INTERIOR.—The Secretary of the Interior is authorized to carry out the activities described in paragraphs (1) through (10) of subsection (d), to the extent authorized under the reclamation laws, the Central Valley Project Improvement Act (title XXXIV of Public Law 102–575; 106 Stat. 4706), the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), and other applicable law.

(2) ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY.—The Administrator of the Environmental Protection Agency is authorized to carry out the activities described in paragraphs (3), (5), (6), (7), (8), and (9) of subsection (d), to the extent authorized under the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), the Safe Drinking Water Act (42 U.S.C. 300f et seq.), and other applicable law.

(3) SECRETARY OF THE ARMY.—The Secretary of the Army is authorized to carry out the activities described in paragraphs (1), (2), (6), (7), (8), and (9) of subsection (d), to the extent

authorized under flood control, water resource development, and other applicable law.

(4) SECRETARY OF COMMERCE.—The Secretary of Commerce is authorized to carry out the activities described in paragraphs (2), (6), (7), and (9) of subsection (d), to the extent authorized under the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), and other applicable law.

(5) SECRETARY OF AGRICULTURE.—The Secretary of Agriculture is authorized to carry out the activities described in paragraphs (3), (5), (6), (7), (8), and (9) of subsection (d), to the extent authorized under title XII of the Food Security Act of 1985 (16 U.S.C. 3801 et seq.), the Farm Security and Rural Investment Act of 2002 (Public Law 107–171; 116 Stat. 134) (including amendments made by that Act), and other applicable law.

(d) DESCRIPTION OF ACTIVITIES UNDER APPLICABLE LAW.—

(1) WATER STORAGE.—

(A) IN GENERAL.—Activities under this paragraph consist of—

(i) planning and feasibility studies for projects to be pursued with project-specific study for enlargement of—

(I) the Shasta Dam in Shasta County; and

(II) the Los Vaqueros Reservoir in Contra Costa County;

(ii) planning and feasibility studies for the following projects requiring further consideration—

(I) the Sites Reservoir in Colusa County; and

(II) the Upper San Joaquin River storage in Fresno and Madera Counties;

(iii) developing and implementing groundwater management and groundwater storage projects; and

(iv) comprehensive water management planning.

(B) STORAGE PROJECT AUTHORIZATION AND BALANCED CALFED IMPLEMENTATION.—

(i) IN GENERAL.—If on completion of the feasibility study for a project described in clause (i) or (ii) of subparagraph (A), the Secretary, in consultation with the Governor, determines that the project should be constructed in whole or in part with Federal funds, the Secretary shall submit the feasibility study to Congress.

(ii) FINDING OF IMBALANCE.—If Congress fails to authorize construction of the project by the end of the next full session following the submission of the feasibility study, the Secretary, in consultation with the Governor, shall prepare a written determination making a finding of imbalance for the Calfed Bay-Delta Program.

(iii) REPORT ON REBALANCING.—

(I) IN GENERAL.—If the Secretary makes a finding of imbalance for the Program under clause (ii), the Secretary, in consultation with the Governor, shall, not later than 180 days after the end of the full session described in clause (ii),

prepare and submit to Congress a report on the measures necessary to rebalance the Program.

(II) SCHEDULES AND ALTERNATIVES.—The report shall include preparation of revised schedules and identification of alternatives to rebalance the Program, including resubmission of the project to Congress with or without modification, construction of other projects, and construction of other projects that provide equivalent water supply and other benefits at equal or lesser cost.

(C) WATER SUPPLY AND YIELD STUDY.—

(i) IN GENERAL.—The Secretary, acting through the Bureau of Reclamation and in coordination with the State, shall conduct a study of available water supplies and existing and future needs for water—

(I) within the units of the Central Valley Project;

(II) within the area served by Central Valley Project agricultural, municipal, and industrial water service contractors; and

(III) within the Calfed Delta solution area.

(ii) RELATIONSHIP TO PRIOR STUDY.—In conducting the study, the Secretary shall incorporate and revise, as necessary, the results of the study required by section 3408(j) of the Central Valley Project Improvement Act of 1992 (Public Law 102–575; 106 Stat. 4730).

(iii) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to the appropriate authorizing and appropriating committees of the Senate and the House of Representatives a report describing the results of the study, including—

(I) new firm yield and water supply improvements, if any, for Central Valley Project agricultural water service contractors and municipal and industrial water service contractors, including those identified in Bulletin 160;

(II) all water management actions or projects, including those identified in Bulletin 160, that would—

(aa) improve firm yield or water supply; and

(bb) if taken or constructed, balance available water supplies and existing demand with due recognition of water right priorities and environmental needs;

(III) the financial costs of the actions and projects described under subclause (II); and

(IV) the beneficiaries of those actions and projects and an assessment of the willingness of the beneficiaries to pay the capital costs and operation and maintenance costs of the actions and projects.

(D) MANAGEMENT.—The Secretary shall conduct activities related to developing groundwater storage projects to the extent authorized under law.

(E) COMPREHENSIVE WATER PLANNING.—The Secretary shall conduct activities related to comprehensive water management planning to the extent authorized under law.

(2) CONVEYANCE.—

(A) SOUTH DELTA ACTIONS.—

(i) IN GENERAL.—In the case of the South Delta, activities under this subparagraph consist of—

(I) the South Delta Improvements Program through actions to—

(aa) increase the State Water Project export limit to 8,500 cfs;

(bb) install permanent, operable barriers in the South Delta, under which Federal agencies shall cooperate with the State to accelerate installation of the permanent, operable barriers in the South Delta, with an intent to complete that installation not later than September 30, 2007;

(cc) evaluate, consistent with the Record of Decision, fish screens and intake facilities at the Tracy Pumping Plant facilities; and

(dd) increase the State Water Project export to the maximum capability of 10,300 cfs;

(II) reduction of agricultural drainage in South Delta channels, and other actions necessary to minimize the impact of drainage on drinking water quality;

(III) evaluation of lower San Joaquin River floodway improvements;

(IV) installation and operation of temporary barriers in the South Delta until fully operable barriers are constructed; and

(V) actions to protect navigation and local diversions not adequately protected by temporary barriers.

(ii) ACTIONS TO INCREASE PUMPING.—Actions to increase pumping shall be accomplished in a manner consistent with the Record of Decision requirement to avoid redirected impacts and adverse impacts to fishery protection and with any applicable Federal or State law that protects—

(I) water diversions and use (including avoidance of increased costs of diversion) by in-Delta water users (including in-Delta agricultural users that have historically relied on water diverted for use in the Delta);

(II) water quality for municipal, industrial, agricultural, and other uses; and

(III) water supplies for areas of origin.

(B) NORTH DELTA ACTIONS.—In the case of the North Delta, activities under this subparagraph consist of—

(i) evaluation and implementation of improved operational procedures for the Delta Cross Channel to address fishery and water quality concerns;

(ii) evaluation of a screened through-Delta facility on the Sacramento River; and

(iii) evaluation of lower Mokelumne River floodway improvements.

(C) INTERTIES.—Activities under this subparagraph consist of—

(i) evaluation and construction of an intertie between the State Water Project California Aqueduct and the Central Valley Project Delta Mendota Canal, near the City of Tracy, as an operation and maintenance activity, except that the Secretary shall design and construct the intertie in a manner consistent with a possible future expansion of the intertie capacity (as described in subsection (f)(1)(B)); and

(ii) assessment of a connection of the Central Valley Project to the Clifton Court Forebay of the State Water Project, with a corresponding increase in the screened intake of the Forebay.

(D) PROGRAM TO MEET STANDARDS.—

(i) IN GENERAL.—Prior to increasing export limits from the Delta for the purposes of conveying water to south-of-Delta Central Valley Project contractors or increasing deliveries through an intertie, the Secretary shall, not later than 1 year after the date of enactment of this Act, in consultation with the Governor, develop and initiate implementation of a program to meet all existing water quality standards and objectives for which the Central Valley Project has responsibility.

(ii) MEASURES.—In developing and implementing the program, the Secretary shall include, to the maximum extent feasible, the measures described in clauses (iii) through (vii).

(iii) RECIRCULATION PROGRAM.—The Secretary shall incorporate into the program a recirculation program to provide flow, reduce salinity concentrations in the San Joaquin River, and reduce the reliance on the New Melones Reservoir for meeting water quality and fishery flow objectives through the use of excess capacity in export pumping and conveyance facilities.

(iv) BEST MANAGEMENT PRACTICES PLAN.—

(I) IN GENERAL.—The Secretary shall develop and implement, in coordination with the State's programs to improve water quality in the San Joaquin River, a best management practices plan to reduce the water quality impacts of the discharges from wildlife refuges that receive water from the Federal Government and discharge salt or other constituents into the San Joaquin River.

(II) COORDINATION WITH INTERESTED PARTIES.—The plan shall be developed in coordination with interested parties in the San Joaquin Valley and the Delta.

(III) COORDINATION WITH ENTITIES THAT DISCHARGE WATER.—The Secretary shall also coordinate activities under this clause with other entities that discharge water into the San Joaquin River to reduce salinity concentrations discharged into

the River, including the timing of discharges to optimize their assimilation.

(v) ACQUISITION OF WATER.—The Secretary shall incorporate into the program the acquisition from willing sellers of water from streams tributary to the San Joaquin River or other sources to provide flow, dilute discharges of salt or other constituents, and to improve water quality in the San Joaquin River below the confluence of the Merced and San Joaquin Rivers, and to reduce the reliance on New Melones Reservoir for meeting water quality and fishery flow objectives.

(vi) PURPOSE.—The purpose of the authority and direction provided to the Secretary under this subparagraph is to provide greater flexibility in meeting the existing water quality standards and objectives for which the Central Valley Project has responsibility so as to reduce the demand on water from New Melones Reservoir used for that purpose and to assist the Secretary in meeting any obligations to Central Valley Project contractors from the New Melones Project.

(vii) UPDATING OF NEW MELONES OPERATING PLAN.—The Secretary shall update the New Melones operating plan to take into account, among other things, the actions described in this title that are designed to reduce the reliance on New Melones Reservoir for meeting water quality and fishery flow objectives, and to ensure that actions to enhance fisheries in the Stanislaus River are based on the best available science.

(3) WATER USE EFFICIENCY.—

(A) WATER CONSERVATION PROJECTS.—Activities under this paragraph include water conservation projects that provide water supply reliability, water quality, and ecosystem benefits to the California Bay-Delta system.

(B) TECHNICAL ASSISTANCE.—Activities under this paragraph include technical assistance for urban and agricultural water conservation projects.

(C) WATER RECYCLING AND DESALINATION PROJECTS.—Activities under this paragraph include water recycling and desalination projects, including groundwater remediation projects and projects identified in the Bay Area Water Plan and the Southern California Comprehensive Water Reclamation and Reuse Study and other projects, giving priority to projects that include regional solutions to benefit regional water supply and reliability needs.

(D) WATER MEASUREMENT AND TRANSFER ACTIONS.—Activities under this paragraph include water measurement and transfer actions.

(E) URBAN WATER CONSERVATION.—Activities under this paragraph include implementation of best management practices for urban water conservation.

(F) RECLAMATION AND RECYCLING PROJECTS.—

(i) PROJECTS.—This subparagraph applies to—

(I) projects identified in the Southern California Comprehensive Water Reclamation and Reuse Study, dated April 2001 and authorized by

section 1606 of the Reclamation Wastewater and Groundwater Study and Facilities Act (43 U.S.C. 390h–4); and

(II) projects identified in the San Francisco Bay Area Regional Water Recycling Program described in the San Francisco Bay Area Regional Water Recycling Program Recycled Water Master Plan, dated December 1999 and authorized by section 1611 of the Reclamation Wastewater and Groundwater Study and Facilities Act (43 U.S.C. 390h–9).

(ii) DEADLINE.—Not later than 180 days after the date of enactment of this Act, the Secretary shall—

(I) complete the review of the existing studies of the projects described in clause (i); and

(II) make the feasibility determinations described in clause (iii).

(iii) FEASIBILITY DETERMINATIONS.—A project described in clause (i) is presumed to be feasible if the Secretary determines for the project—

(I) in consultation with the affected local sponsoring agency and the State, that the existing planning and environmental studies for the project (together with supporting materials and documentation) have been prepared consistent with Bureau of Reclamation procedures for projects under consideration for financial assistance under the Reclamation Wastewater and Groundwater Study and Facilities Act (43 U.S.C. 390h et seq.); and

(II) that the planning and environmental studies for the project (together with supporting materials and documentation) demonstrate that the project will contribute to the goals of improving water supply reliability in the Calfed solution area or the Colorado River Basin within the State and otherwise meets the requirements of section 1604 of the Reclamation Wastewater and Groundwater Study and Facilities Act (43 U.S.C. 390h–2).

(iv) REPORT.—Not later than 90 days after the date of completion of a feasibility study or the review of a feasibility study under this subparagraph, the Secretary shall submit to the appropriate authorizing and appropriating committees of the Senate and the House of Representatives a report describing the results of the study or review.

(4) WATER TRANSFERS.—Activities under this paragraph consist of—

(A) increasing the availability of existing facilities for water transfers;

(B) lowering transaction costs through permit streamlining; and

(C) maintaining a water transfer information clearinghouse.

(5) INTEGRATED REGIONAL WATER MANAGEMENT PLANS.—Activities under this paragraph consist of assisting local and

regional communities in the State in developing and implementing integrated regional water management plans to carry out projects and programs that improve water supply reliability, water quality, ecosystem restoration, and flood protection, or meet other local and regional needs, in a manner that is consistent with, and makes a significant contribution to, the Calfed Bay-Delta Program.

(6) ECOSYSTEM RESTORATION.—

(A) IN GENERAL.—Activities under this paragraph consist of—

(i) implementation of large-scale restoration projects in San Francisco Bay and the Delta and its tributaries;

(ii) restoration of habitat in the Delta, San Pablo Bay, and Suisun Bay and Marsh, including tidal wetland and riparian habitat;

(iii) fish screen and fish passage improvement projects, including the Sacramento River Small Diversion Fish Screen Program;

(iv) implementation of an invasive species program, including prevention, control, and eradication;

(v) development and integration of Federal and State agricultural programs that benefit wildlife into the Ecosystem Restoration Program;

(vi) financial and technical support for locally-based collaborative programs to restore habitat while addressing the concerns of local communities;

(vii) water quality improvement projects to manage or reduce concentrations of salinity, selenium, mercury, pesticides, trace metals, dissolved oxygen, turbidity, sediment, and other pollutants;

(viii) land and water acquisitions to improve habitat and fish spawning and survival in the Delta and its tributaries;

(ix) integrated flood management, ecosystem restoration, and levee protection projects;

(x) scientific evaluations and targeted research on Program activities; and

(xi) strategic planning and tracking of Program performance.

(B) REPORTING REQUIREMENTS.—The Secretary or the head of the relevant Federal agency (as appropriate under clause (ii)) shall provide to the appropriate authorizing committees of the Senate and the House of Representatives and other appropriate parties in accordance with this subparagraph—

(i) an annual ecosystem program plan report in accordance with subparagraph (C); and

(ii) detailed project reports in accordance with subparagraph (D).

(C) ANNUAL ECOSYSTEM PROGRAM PLAN.—

(i) IN GENERAL.—Not later than October 1 of each year, with respect to each ecosystem restoration action carried out using Federal funds under this title, the Secretary, in consultation with the Governor, shall submit to the appropriate authorizing committees of

the Senate and the House of Representatives an annual ecosystem program plan report.

(ii) PURPOSES.—The purposes of the report are—

(I) to describe the projects and programs to implement this subsection in the following fiscal year; and

(II) to establish priorities for funding the projects and programs for subsequent fiscal years.

(iii) CONTENTS.—The report shall describe—

(I) the goals and objectives of the programs and projects;

(II) program accomplishments;

(III) major activities of the programs;

(IV) the Federal agencies involved in each project or program identified in the plan and the cost-share arrangements with cooperating agencies;

(V) the resource data and ecological monitoring data to be collected for the restoration projects and how the data are to be integrated, streamlined, and designed to measure the effectiveness and overall trend of ecosystem health in the Bay-Delta watershed;

(VI) implementation schedules and budgets;

(VII) existing monitoring programs and performance measures;

(VIII) the status and effectiveness of measures to minimize the impacts of the program on agricultural land; and

(IX) a description of expected benefits of the restoration program relative to the cost.

(iv) SPECIAL RULE FOR LAND ACQUISITION USING FEDERAL FUNDS.—For each ecosystem restoration project involving land acquisition using Federal funds under this title, the Secretary shall—

(I) identify the specific parcels to be acquired in the annual ecosystem program plan report under this subparagraph; or

(II) not later than 150 days before the project is approved, provide to the appropriate authorizing committees of the Senate and the House of Representatives, the United States Senators from the State, and the United States Representative whose district would be affected, notice of any such proposed land acquisition using Federal funds under this title submitted to the Federal or State agency.

(D) DETAILED PROJECT REPORTS.—

(i) IN GENERAL.—In the case of each ecosystem restoration program or project funded under this title that is not specifically identified in an annual ecosystem program plan under subparagraph (C), not later than 45 days prior to approval, the Secretary, in coordination with the State, shall submit to the appropriate authorizing committees of the Senate and the House of Representatives recommendations on the proposed program or project.

(ii) CONTENTS.—The recommendations shall—

(I) describe the selection of the program or project, including the level of public involvement and independent science review;

(II) describe the goals, objectives, and implementation schedule of the program or project, and the extent to which the program or project addresses regional and programmatic goals and priorities;

(III) describe the monitoring plans and performance measures that will be used for evaluating the performance of the proposed program or project;

(IV) identify any cost-sharing arrangements with cooperating entities;

(V) identify how the proposed program or project will comply with all applicable Federal and State laws, including the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.); and

(VI) in the case of any program or project involving the acquisition of private land using Federal funds under this title—

(aa) describe the process and timing of notification of interested members of the public and local governments;

(bb) describe the measures taken to minimize impacts on agricultural land pursuant to the Record of Decision; and

(cc) include preliminary management plans for all properties to be acquired with Federal funds, including an overview of existing conditions (including habitat types in the affected project area), the expected ecological benefits, preliminary cost estimates, and implementation schedules.

(7) WATERSHEDS.—Activities under this paragraph consist of—

(A) building local capacity to assess and manage watersheds affecting the Delta system;

(B) technical assistance for watershed assessments and management plans; and

(C) developing and implementing locally-based watershed conservation, maintenance, and restoration actions.

(8) WATER QUALITY.—Activities under this paragraph consist of—

(A) addressing drainage problems in the San Joaquin Valley to improve downstream water quality (including habitat restoration projects that improve water quality) if—

(i) a plan is in place for monitoring downstream water quality improvements; and

(ii) State and local agencies are consulted on the activities to be funded;

except that no right, benefit, or privilege is created as a result of this subparagraph;

(B) implementation of source control programs in the Delta and its tributaries;

(C) developing recommendations through scientific panels and advisory council processes to meet the Calfed Bay-Delta Program goal of continuous improvement in Delta water quality for all uses;

(D) investing in treatment technology demonstration projects;

(E) controlling runoff into the California aqueduct, the Delta-Mendota Canal, and other similar conveyances;

(F) addressing water quality problems at the North Bay Aqueduct;

(G) supporting and participating in the development of projects to enable San Francisco Bay Area water districts, and water entities in San Joaquin and Sacramento Counties, to work cooperatively to address their water quality and supply reliability issues, including—

(i) connections between aqueducts, water transfers, water conservation measures, institutional arrangements, and infrastructure improvements that encourage regional approaches; and

(ii) investigations and studies of available capacity in a project to deliver water to the East Bay Municipal Utility District under its contract with the Bureau of Reclamation, dated July 20, 2001, in order to determine if such capacity can be utilized to meet the objectives of this subparagraph;

(H) development of water quality exchanges and other programs to make high quality water available for urban and other users;

(I) development and implementation of a plan to meet all Delta water quality standards for which the Federal and State water projects have responsibility;

(J) development of recommendations through science panels and advisory council processes to meet the Calfed Bay-Delta Program goal of continuous improvement in water quality for all uses; and

(K) projects that are consistent with the framework of the water quality component of the Calfed Bay-Delta Program.

(9) SCIENCE.—Activities under this paragraph consist of—

(A) supporting establishment and maintenance of an independent science board, technical panels, and standing boards to provide oversight and peer review of the Program;

(B) conducting expert evaluations and scientific assessments of all Program elements;

(C) coordinating existing monitoring and scientific research programs;

(D) developing and implementing adaptive management experiments to test, refine, and improve scientific understandings;

(E) establishing performance measures, and monitoring and evaluating the performance of all Program elements; and

(F) preparing an annual science report.

(10) DIVERSIFICATION OF WATER SUPPLIES.—Activities under this paragraph consist of actions to diversify sources of level 2 refuge supplies and modes of delivery to refuges while maintaining the diversity of level 4 supplies pursuant to section

3406(d)(2) of the Central Valley Project Improvement Act (Public Law 102–575; 106 Stat. 4723).

(e) NEW AND EXPANDED AUTHORIZATIONS FOR FEDERAL AGENCIES.—

(1) IN GENERAL.—The heads of the Federal agencies described in this subsection are authorized to carry out the activities described in subsection (f) during each of fiscal years 2005 through 2010, in coordination with the Governor.

(2) SECRETARY OF THE INTERIOR.—The Secretary of the Interior is authorized to carry out the activities described in paragraphs (1), (2), and (4) of subsection (f).

(3) ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY AND THE SECRETARIES OF AGRICULTURE AND COMMERCE.—The Administrator of the Environmental Protection Agency, the Secretary of Agriculture, and the Secretary of Commerce are authorized to carry out the activities described in subsection (f)(4).

(4) SECRETARY OF THE ARMY.—The Secretary of the Army is authorized to carry out the activities described in paragraphs (3) and (4) of subsection (f).

(f) DESCRIPTION OF ACTIVITIES UNDER NEW AND EXPANDED AUTHORIZATIONS.—

(1) CONVEYANCE.—Of the amounts authorized to be appropriated under section 109, not more than $184,000,000 may be expended for the following:

(A) SAN LUIS RESERVOIR.—Funds may be expended for feasibility studies, evaluation, and implementation of the San Luis Reservoir lowpoint improvement project, except that Federal participation in any construction of an expanded Pacheco Reservoir shall be subject to future congressional authorization.

(B) INTERTIE.—Funds may be expended for feasibility studies and evaluation of increased capacity of the intertie between the State Water Project California Aqueduct and the Central Valley Project Delta Mendota Canal.

(C) FRANKS TRACT.—Funds may be expended for feasibility studies and actions at Franks Tract to improve water quality in the Delta.

(D) CLIFTON COURT FOREBAY AND THE TRACY PUMPING PLANT.—Funds may be expended for feasibility studies and design of fish screen and intake facilities at Clifton Court Forebay and the Tracy Pumping Plant facilities.

(E) DRINKING WATER INTAKE FACILITIES.—

(i) IN GENERAL.—Funds may be expended for design and construction of the relocation of drinking water intake facilities to in-Delta water users.

(ii) DRINKING WATER QUALITY.—The Secretary shall coordinate actions for relocating intake facilities on a time schedule consistent with subsection (d)(2)(A)(i)(I)(bb) or take other actions necessary to offset the degradation of drinking water quality in the Delta due to the South Delta Improvement Program.

(F) NEW MELONES RESERVOIR.—

(i) IN GENERAL.—In addition to the other authorizations granted to the Secretary by this title, the Secretary shall acquire water from willing sellers

and undertake other actions designed to decrease releases from the New Melones Reservoir for meeting water quality standards and flow objectives for which the Central Valley Project has responsibility to assist in meeting allocations to Central Valley Project contractors from the New Melones Project.

(ii) PURPOSE.—The authorization under this subparagraph is solely meant to add flexibility for the Secretary to meet any obligations of the Secretary to the Central Valley Project contractors from the New Melones Project by reducing demand for water dedicated to meeting water quality standards in the San Joaquin River.

(iii) FUNDING.—Of the amounts authorized to be appropriated under section 109, not more than $30,000,000 may be expended to carry out clause (i).

(G) RECIRCULATION OF EXPORT WATER.—Funds may be used to conduct feasibility studies, evaluate, and, if feasible, implement the recirculation of export water to reduce salinity and improve dissolved oxygen in the San Joaquin River.

(2) ENVIRONMENTAL WATER ACCOUNT.—

(A) IN GENERAL.—Of the amounts authorized to be appropriated under section 109, not more than $90,000,000 may be expended for implementation of the Environmental Water Account.

(B) NONREIMBURSABLE FEDERAL EXPENDITURE.—Expenditures under subparagraph (A) shall be considered a nonreimbursable Federal expenditure in recognition of the payments of the contractors of the Central Valley Project to the Restoration Fund created by the Central Valley Project Improvement Act (Title XXXIV of Public Law 102–575; 106 Stat. 4706).

(C) USE OF RESTORATION FUND.—

(i) IN GENERAL.—Of the amounts appropriated for the Restoration Fund for each fiscal year, an amount not to exceed $10,000,000 for any fiscal year may be used to implement the Environmental Water Account to the extent those actions are consistent with the fish and wildlife habitat restoration and improvement purposes of the Central Valley Project Improvement Act.

(ii) ACCOUNTING.—Any such use of the Restoration Fund shall count toward the 33 percent of funds made available to the Restoration Fund that, pursuant to section 3407(a) of the Central Valley Project Improvement Act, are otherwise authorized to be appropriated to the Secretary to carry out paragraphs (4) through (6), (10) through (18), and (20) through (22) of section 3406(b) of that Act.

(iii) FEDERAL FUNDING.—The $10,000,000 limitation on the use of the Restoration Fund for the Environmental Water Account under clause (i) does not limit the appropriate amount of Federal funding for the Environmental Water Account.

(3) LEVEE STABILITY.—

(A) IN GENERAL.—For purposes of implementing the Calfed Bay-Delta Program within the Delta (as defined in Cal. Water Code § 12220)), the Secretary of the Army is authorized to undertake the construction and implementation of levee stability programs or projects for such purposes as flood control, ecosystem restoration, water supply, water conveyance, and water quality objectives.

(B) REPORT.—Not later than 180 days after the date of enactment of this Act, the Secretary of the Army shall submit to the appropriate authorizing and appropriating committees of the Senate and the House of Representatives a report that describes the levee stability reconstruction projects and priorities that will be carried out under this title during each of fiscal years 2005 through 2010.

(C) SMALL FLOOD CONTROL PROJECTS.—Notwithstanding the project purpose, the authority granted under section 205 of the Flood Control Act of 1948 (33 U.S.C. 701s) shall apply to each project authorized under this paragraph.

(D) PROJECTS.—Of the amounts authorized to be appropriated under section 109, not more than $90,000,000 may be expended to—

(i) reconstruct Delta levees to a base level of protection (also known as the "Public Law 84–99 standard");

(ii) enhance the stability of levees that have particular importance in the system through the Delta Levee Special Improvement Projects Program;

(iii) develop best management practices to control and reverse land subsidence on Delta islands;

(iv) develop a Delta Levee Emergency Management and Response Plan that will enhance the ability of Federal, State, and local agencies to rapidly respond to levee emergencies;

(v) develop a Delta Risk Management Strategy after assessing the consequences of Delta levee failure from floods, seepage, subsidence, and earthquakes;

(vi) reconstruct Delta levees using, to the maximum extent practicable, dredged materials from the Sacramento River, the San Joaquin River, and the San Francisco Bay in reconstructing Delta levees;

(vii) coordinate Delta levee projects with flood management, ecosystem restoration, and levee protection projects of the lower San Joaquin River and lower Mokelumne River floodway improvements and other projects under the Sacramento-San Joaquin Comprehensive Study; and

(viii) evaluate and, if appropriate, rehabilitate the Suisun Marsh levees.

(4) PROGRAM MANAGEMENT, OVERSIGHT, AND COORDINATION.—

(A) IN GENERAL.—Of the amounts authorized to be appropriated under section 109, not more than $25,000,000 may be expended by the Secretary or the other heads of Federal agencies, either directly or through grants, contracts, or cooperative agreements with agencies of the State, for—

(i) Program support;

(ii) Program-wide tracking of schedules, finances, and performance;

(iii) multiagency oversight and coordination of Program activities to ensure Program balance and integration;

(iv) development of interagency cross-cut budgets and a comprehensive finance plan to allocate costs in accordance with the beneficiary pays provisions of the Record of Decision;

(v) coordination of public outreach and involvement, including tribal, environmental justice, and public advisory activities in accordance with the Federal Advisory Committee Act (5 U.S.C. App.); and

(vi) development of Annual Reports.

(B) PROGRAM-WIDE ACTIVITIES.—Of the amount referred to in subparagraph (A), not less than 50 percent of the appropriated amount shall be provided to the California Bay-Delta Authority to carry out Program-wide management, oversight, and coordination activities.

SEC. 104. MANAGEMENT.

(a) COORDINATION.—In carrying out the Calfed Bay-Delta Program, the Federal agencies shall coordinate their activities with the State agencies.

(b) PUBLIC PARTICIPATION.—In carrying out the Calfed Bay-Delta Program, the Federal agencies shall cooperate with local and tribal governments and the public through an advisory committee established in accordance with the Federal Advisory Committee Act (5 U.S.C. App.) and other appropriate means, to seek input on Program planning and design, technical assistance, and development of peer review science programs.

(c) SCIENCE.—In carrying out the Calfed Bay-Delta Program, the Federal agencies shall seek to ensure, to the maximum extent practicable, that—

(1) all major aspects of implementing the Program are subjected to credible and objective scientific review; and

(2) major decisions are based upon the best available scientific information.

(d) GOVERNANCE.—

(1) IN GENERAL.—In carrying out the Calfed Bay-Delta Program, the Secretary and the Federal agency heads are authorized to participate as nonvoting members of the California Bay-Delta Authority, as established in the California Bay-Delta Authority Act (Cal. Water Code § 79400 et seq.), to the extent consistent with Federal law, for the full duration of the period the Authority continues to be authorized by State law.

(2) RELATIONSHIP TO FEDERAL LAW AND AGENCIES.—Nothing in this subsection shall preempt or otherwise affect any Federal law or limit the statutory authority of any Federal agency.

(3) CALIFORNIA BAY-DELTA AUTHORITY.—

(A) ADVISORY COMMITTEE.—The California Bay-Delta Authority shall not be considered an advisory committee within the meaning of the Federal Advisory Committee Act (5 U.S.C. App.).

(B) FINANCIAL INTEREST.—The financial interests of the California Bay-Delta Authority shall not be imputed to any Federal official participating in the Authority.

(C) ETHICS REQUIREMENTS.—A Federal official participating in the California Bay-Delta Authority shall remain subject to Federal financial disclosure and conflict of interest laws and shall not be subject to State financial disclosure and conflict of interest laws.

(e) ENVIRONMENTAL JUSTICE.—The Federal agencies, consistent with Executive Order 12898 (59 Fed. Reg. 7629), should continue to collaborate with State agencies to—

(1) develop a comprehensive environmental justice workplan for the Calfed Bay-Delta Program; and

(2) fulfill the commitment to addressing environmental justice challenges referred to in the Calfed Bay-Delta Program Environmental Justice Workplan, dated December 13, 2000.

(f) LAND ACQUISITION.—Federal funds appropriated by Congress specifically for implementation of the Calfed Bay-Delta Program may be used to acquire fee title to land only where consistent with the Record of Decision.

SEC. 105. REPORTING REQUIREMENTS.

(a) REPORT.—

(1) IN GENERAL.—Not later than February 15 of each year, the Secretary, in cooperation with the Governor, shall submit to the appropriate authorizing and appropriating committees of the Senate and the House of Representatives a report that—

(A) describes the status of implementation of all components of the Calfed Bay-Delta Program;

(B) sets forth any written determination resulting from the review required under subsection (b) or section 103(d)(1)(B); and

(C) includes any revised schedule prepared under subsection (b) or section 103(d)(1)(B)(iii)(II).

(2) CONTENTS.—The report required under paragraph (1) shall describe—

(A) the progress of the Calfed Bay-Delta Program in meeting the implementation schedule for the Program in a manner consistent with the Record of Decision;

(B) the status of implementation of all components of the Program;

(C) expenditures in the past fiscal year for implementing the Program;

(D) accomplishments during the past fiscal year in achieving the objectives of additional and improved—

(i) water storage;

(ii) water quality, including—

(I) the water quality targets described in section 2.2.9 of the Record of Decision; and

(II) any pending actions that may affect the ability of the Calfed Bay-Delta Program to achieve those targets and requirements;

(iii) water use efficiency;

(iv) ecosystem restoration;

(v) watershed management;

(vi) levee system integrity;

(vii) water transfers;

(viii) water conveyance;

(ix) water supply reliability (including new firm yield), including progress in achieving the water supply targets described in section 2.2.4 of the Record of Decision and any pending actions that may affect the ability of the Calfed Bay-Delta Program to achieve those targets; and

(x) the uses and assets of the environmental water account described in section 2.2.7 of the Record of Decision;

(E) Program goals, current schedules, and relevant financing agreements, including funding levels necessary to achieve completion of the feasibility studies and environmental documentation for the surface storage projects identified in section 103 by not later than September 30, 2008;

(F) progress on—

(i) storage projects;

(ii) conveyance improvements;

(iii) levee improvements;

(iv) water quality projects; and

(v) water use efficiency programs;

(G) completion of key projects and milestones identified in the Ecosystem Restoration Program, including progress on project effectiveness, monitoring, and accomplishments;

(H) development and implementation of local programs for watershed conservation and restoration;

(I) progress in improving water supply reliability and implementing the Environmental Water Account;

(J) achievement of commitments under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) and endangered species law of the State;

(K) implementation of a comprehensive science program;

(L) progress toward acquisition of the Federal and State permits (including permits under section 404(a) of the Federal Water Pollution Control Act (33 U.S.C. 1344(a))) for implementation of projects in all identified Program areas;

(M) progress in achieving benefits in all geographic regions covered by the Program;

(N) legislative action on—

(i) water transfer;

(ii) groundwater management;

(iii) water use efficiency; and

(iv) governance;

(O) the status of complementary actions;

(P) the status of mitigation measures; and

(Q) revisions to funding commitments and Program responsibilities.

(b) ANNUAL REVIEW OF PROGRESS AND BALANCE.—

(1) IN GENERAL.—Not later than November 15 of each year, the Secretary, in cooperation with the Governor, shall review progress in implementing the Calfed Bay-Delta Program based on—

(A) consistency with the Record of Decision; and

(B) balance in achieving the goals and objectives of the Calfed Bay-Delta Program.

(2) REVISED SCHEDULE.—If, at the conclusion of each such annual review or if a timely annual review is not undertaken, the Secretary or the Governor determines in writing that either the Program implementation schedule has not been substantially adhered to, or that balanced progress in achieving the goals and objectives of the Program is not occurring, the Secretary and the Governor, in coordination with the Bay-Delta Public Advisory Committee, shall prepare a revised schedule to achieve balanced progress in all Calfed Bay-Delta Program elements consistent with the intent of the Record of Decision.

(c) FEASIBILITY STUDIES.—Any feasibility studies completed as a result of this title shall include identification of project benefits and a cost allocation plan consistent with the beneficiaries pay provisions of the Record of Decision.

SEC. 106. CROSSCUT BUDGET.

(a) IN GENERAL.—The President's budget shall include such requests as the President considers necessary and appropriate for the appropriate level of funding for each of the Federal agencies to carry out its responsibilities under the Calfed Bay-Delta Program.

(b) REQUESTS BY FEDERAL AGENCIES.—The funds shall be requested for the Federal agency with authority and programmatic responsibility for the obligation of the funds, in accordance with subsections (b) through (f) of section 103.

(c) REPORT.—Not later than 30 days after submission of the budget of the President to Congress, the Director of the Office of Management and Budget, in coordination with the Governor, shall submit to the appropriate authorizing and appropriating committees of the Senate and the House of Representatives a financial report certified by the Secretary containing—

(1) an interagency budget crosscut report that—

(A) displays the budget proposed, including any interagency or intra-agency transfer, for each of the Federal agencies to carry out the Calfed Bay-Delta Program for the upcoming fiscal year, separately showing funding requested under both pre-existing authorities and under the new authorities granted by this title; and

(B) identifies all expenditures since 1998 by the Federal and State governments to achieve the objectives of the Calfed Bay-Delta Program;

(2) a detailed accounting of all funds received and obligated by all Federal agencies and State agencies responsible for implementing the Calfed Bay-Delta Program during the previous fiscal year;

(3) a budget for the proposed projects (including a description of the project, authorization level, and project status) to be carried out in the upcoming fiscal year with the Federal portion of funds for activities under subsections (b) through (f) of section 103; and

(4) a listing of all projects to be undertaken in the upcoming fiscal year with the Federal portion of funds for activities under subsections (b) through (f) of section 103.

SEC. 107. FEDERAL SHARE OF COSTS.

(a) IN GENERAL.—The Federal share of the cost of implementing the Calfed Bay-Delta Program for fiscal years 2005 through 2010

in the aggregate, as set forth in the Record of Decision, shall not exceed 33.3 percent.

(b) PAYMENT FOR BENEFITS.—The Secretary shall ensure that all beneficiaries, including beneficiaries of environmental restoration and other Calfed program elements, shall pay for the benefit received from all projects or activities carried out under the Calfed Bay-Delta Program.

(c) INTEGRATED RESOURCE PLANNING.—Federal expenditures for the Calfed Bay-Delta Program shall be implemented in a manner that encourages integrated resource planning.

SEC. 108. COMPLIANCE WITH STATE AND FEDERAL LAW.

Nothing in this title—

(1) invalidates or preempts State water law or an interstate compact governing water;

(2) alters the rights of any State to any appropriated share of the waters of any body of surface or ground water;

(3) preempts or modifies any State or Federal law or interstate compact governing water quality or disposal;

(4) confers on any non-Federal entity the ability to exercise any Federal right to the waters of any stream or to any ground water resource; or

(5) alters or modifies any provision of existing Federal law, except as specifically provided in this title.

SEC. 109. AUTHORIZATION OF APPROPRIATION.

There are authorized to be appropriated to the Secretary and the heads of the Federal agencies to pay the Federal share of the cost of carrying out the new and expanded authorities described in subsections (e) and (f) of section 103 $389,000,000 for the period of fiscal years 2005 through 2010, to remain available until expended.

TITLE II—MISCELLANEOUS

SEC. 201. SALTON SEA STUDY PROGRAM.

Not later than December 31, 2006, the Secretary of the Interior, in coordination with the State of California and the Salton Sea Authority, shall complete a feasibility study on a preferred alternative for Salton Sea restoration.

SEC. 202. ALDER CREEK WATER STORAGE AND CONSERVATION PROJECT FEASIBILITY STUDY AND REPORT.

(a) STUDY.—Pursuant to Federal reclamation law (the Act of June 17, 1902 (32 Stat. 388, chapter 1093), and Acts supplemental to and amendatory of that Act (43 U.S.C. 371 et seq.)), the Secretary of the Interior (referred to in this section as the "Secretary"), through the Bureau of Reclamation, and in consultation and cooperation with the El Dorado Irrigation District, is authorized to conduct a study to determine the feasibility of constructing a project on Alder Creek in El Dorado County, California, to store water and provide water supplies during dry and critically dry years for consumptive use, recreation, in-stream flows, irrigation, and power production.

(b) REPORT.—

(1) TRANSMISSION.—On completion of the study authorized by subsection (a), the Secretary shall transmit to the Committee

on Resources of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report containing the results of the study.

(2) CONTENTS OF REPORT.—The report shall contain appropriate cost sharing options for the implementation of the project based on the use and possible allocation of any stored water.

(3) USE OF AVAILABLE MATERIALS.—In developing the report under this section, the Secretary shall use reports and any other relevant information supplied by the El Dorado Irrigation District.

(c) COST SHARE.—

(1) FEDERAL SHARE.—The Federal share of the costs of the feasibility study authorized by this section shall not exceed 50 percent of the total cost of the study.

(2) IN-KIND CONTRIBUTION FOR NON-FEDERAL SHARE.—The Secretary may accept as part of the non-Federal cost share the contribution such in-kind services by the El Dorado Irrigation District as the Secretary determines will contribute to the conduct and completion of the study.

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $3,000,000.

SEC. 203. FOLSOM RESERVOIR TEMPERATURE CONTROL DEVICE AUTHORIZATION.

Section 1(c) of Public Law 105–295 (112 Stat. 2820) (as amended by section 219(b) of Public Law 108–137 (117 Stat. 1853)) is amended in the second sentence by striking "$3,500,000" and inserting "$6,250,000".

Speaker of the House of Representatives.

Vice President of the United States and
President of the Senate.

Senate Bill No. 1155

CHAPTER 612

An act to add Section 138.10 to the Water Code, relating to water.

[Approved by Governor September 21, 2004. Filed with Secretary of State September 21, 2004.]

LEGISLATIVE COUNSEL'S DIGEST

SB 1155, Machado. Water quality standards: Sacramento-San Joaquin Delta.

Under existing law, the Department of Water Resources operates the State Water Project, which includes state water facilities, as defined. Under existing law, the State Water Resources Control Board administers a water rights program pursuant to which the state board grants permits and licenses to appropriate water.

The bill would require the Director of Water Resources, in collaboration with the Secretary of Interior or his or her designee, and on or before January 1, 2006, to prepare a plan to meet the existing permit and license conditions for which the department has an obligation, as described in a specified decision adopted by the state board. The bill would require the director to prepare the plan, and submit copies of the plan to the state board and California Bay-Delta Authority, prior to increasing the existing permitted diversion rate at a specified pumping plant.

The people of the State of California do enact as follows:

SECTION 1. Section 138.10 is added to the Water Code, to read:

138.10. (a) On or before January 1, 2006, the director, in collaboration with the Secretary of Interior or his or her designee, shall prepare a plan to meet the existing permit and license conditions for which the department has an obligation, as described in the State Water Resources Control Board Decision No. 1641.

(b) The plan shall be designed to achieve compliance with the permit and license conditions described in subdivision (a). The director shall prepare the plan, and submit copies of the plan to the board and the California Bay-Delta Authority, prior to increasing the existing permitted diversion rate at the State Water Project's Harvey O. Banks Pumping Plant.

(c) Nothing in this section limits or restricts the department in its operation of the State Water Project due to failure of other water rights

permittees or licensees to meet water quality conditions of their respective permits or licenses.

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Summary of 1997 Analysis of PROSIM and SANJASM Results Demonstrating Instances of Failure to Meet Vernalis Base Flow Required for X2 Compliance

In 1997, Reclamation staff performed an analysis based on PROSIM and SANJASM results that were being used at the time for analyzing San Joaquin- Bay Delta alternatives. The purpose of the analysis, among other things, was to look at how the San Joaquin River Agreement (SJRA) and Vernalis Adaptive Management Program (VAMP) would affect Reclamation's ability to meet other San Joaquin River flow requirements at Vernalis, and then also to look at to what degree SJRA affected the Central Valley Project (CVP) and State Water Project (SWP) Delta operations.

This analysis produced data regarding how often Reclamation failed to meet Vernalis Base flow requirements (i.e. February-June minimum flows required as a component of X2 compliance). The results of the analysis are interesting. First of all, VAMP caused the frequency of not meeting the Vernalis Base flows to increase, but only slightly. Secondly, the failures to meet the Vernalis flow seem to break into two categories: 1) pre-VAMP (February-April) and 2) post-VAMP (June). VAMP was assumed to occur in May in these studies, so Vernalis base flows were not an issue in May.

In the February-April (pre-VAMP) period, Vernalis Base flow was not met in at least one month in 13 of 71 study years (1922-1992). The typical situation was a "Dry" year category (60/20/20 Index) wherein the flow requirement was based on X2 being downstream of Chipps Island. In such cases, the Vernalis flow must be 2,280 cfs, and in a "Dry" year in those months, neither the hydrology nor the New Melones Interim Operations Plan (NMIOP) provide that much flow very often.

In June (post-VAMP), the Vernalis flows were not met in 12 out of 71 years. But the characteristic year for failure was quite different than for the Pre-VAMP period. The typical situation was "Above Normal" year category (60/20/20 Index) in which flows up to 3,420 cfs can be required depending on X2 requirements. Again, neither the hydrology nor the NMIOP seems to provide that much flow under those conditions.

The genesis of the Vernalis base flow requirements, as we understand, was the CVP-OCAP endangered species consultation with United States Fish and Wildlife Service (FWS) in 1994. The San Joaquin River component of X2, which is the required Vernalis base flow from February-June, was set at either 10% (Critical 60/20/20), 20% (Dry and BN), or 30% (AN and Wet), of the surrogate X2 Delta outflow at either Collinsville (7,100 cfs), or Chipps Island (11,400 cfs). Although the importance of San Joaquin flows is cited in the FWS March 6, 1995 Biological Opinion, we were not aware of any assessment relating these arbitrary flow thresholds to any specific biological habitat needs. In the December 15, 1994 Principles for Agreement, Reclamation took responsibility on an interim basis for meeting Vernalis flows. The assumption was that the flows would be re-evaluated as to timing and magnitude, and that SWRCB would assign responsibility. As has been demonstrated, providing the Vernalis flows long-term is beyond the capabilities of Reclamation through its operation of New Melones.

EXHIBIT F

Summary of 1997 Analysis of PROSIM and SANJASM Results

Instances of Failure to meet Vernalis Base Flow Requirement for Model Years 1922-1992

February

Year	WY Class (SJVI)	Modeled VNS Flow w/VAMP	WQCP Req. Flow VNS
1948	BN	1,387	2,280
1964	D	1,692	2,280
1955	D	1,909	2,280
1935	AN	3,230	3,420
1963	AN	3,231	3,420

Feb: 5/71 years

March

Year	WY Class (SJVI)	Modeled VNS Flow w/VAMP	WQCP Req. Flow VNS
1972	D	1,535	2,280
1926	D	1,749	2,280
1947	D	1,900	2,280
1963	AN	3,118	3,420
1958	D	2,086	2,280
1959	D	2,160	2,280
1964	D	1,713	1,774
1985	D	2,169	2,185

Mar: 8/71 years

April

Year	WY Class (SJVI)	Modeled VNS Flow w/VAMP	WQCP Req. Flow VNS
1972	D	1,728	2,280
1933	D	1,825	2,068
1947	D	1,933	2,251
1966	BN	2,122	2,251
1968	D	2,209	2,251

Apr: 5/71 years

June

Year	WY Class (SJVI)	Modeled VNS Flow w/VAMP	WQCP Req. Flow VNS
1932	AN	1,889	3,177
1979	AN	2,197	3,288
1973	AN	2,280	3,334
1927	AN	2,205	3,210
1936	AN	2,222	2,872
1935	AN	2,810	3,334
1963	AN	2,861	3,374
1945	AN	2,648	2,956
1923	AN	2,554	2,816
1950	BN	1,830	1,933
1948	BN	2,121	2,192
1933	D	1,391	1,431

Jun: 12/71 years

Overall, Feb-Apr (i.e. before VAMP): 13/71 individual model years have deficient Vernalis base flow

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Notes:
1. WQCP Required Flows Calculated based on Previous month 8 River Index and WQCP tables for determining number of days X2 downstream of Chipps Island.
2. Modeled Flows assume VAMP implemented during May, so Vernalis base flows are only required Feb-Apr and Jun.