

DEPARTMENT OF WATER RESOURCES

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Executive Office
State Water Resources Control Board
Cal/EPA Headquarters
1001 "I" Street
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Re: Workshops Regarding Revisions to the 1995 Bay-Delta Water Quality Control Plan

The Department of Water Resources submits the following comments regarding topics being considered for revision in the 1995 Water Quality Control Plan. At the October workshops on the Delta Cross Channel Gate objective and the narrative objective for salmon doubling, the members of the Board had numerous questions regarding studies that could explain whether changes in the objectives would improve protection for the beneficial uses of Delta waters. DWR is involved in some of the studies and actions that involve protection of fish, Delta water quality, and water supply. Below are DWR's comments on these issues and recommendations as to future actions.

Delta Cross Channel Gate Objective

The Department of Water Resources (DWR) recommends that the State Water Resources Control Board make no change to the 1995 Water Quality Control Plan objective on Table 3 for the operation of the Delta Cross Channel Gates. The 1995 Plan objective calls for closing the DCC gates up to 45 days from November 1 through January 31 as needed for the protection of fish. In addition, under the objective for fish protection the gates are closed from February through May 20 and for a total of 14 days during the period May 21 through June 15. As provided under the WQCP objective (footnotes 26 and 27), decisions regarding DCC gate closures are determined through the CALFED Operations Group (Ops Group) process.

The Salmon Decision Process

The Ops Group process originates from a 1994 Framework Agreement to coordinate State Water Project (SWP) and Central Valley Project (CVP) operations, fishery protection, and water quality requirements in the Bay-Delta. The Ops Group meetings are regularly attended by State and federal representatives from DWR, U.S. Bureau of Reclamation, California Department of Fish and Game (DFG), U.S. Fish and Wildlife Service (USFWS), NOAA

Fisheries, State Water Resources Control Board (SWRCB), and interested stakeholder groups including water contractors of the SWP and CVP, the South Delta Water Agency, and The Bay Institute. The Ops Group meets monthly to review and discuss conditions in the Delta, SWP and CVP operations, and concerns regarding fish and water quality. The Ops Group created a subgroup of technical experts from their agencies, known as the Data Assessment Team (DAT) to review real-time data in relation to Project operations and that could recommend adaptive management decisions to the Ops Group. When developing a recommendation on whether to open or close the Delta Cross Channel (DCC) gates, the DAT considers all available fishery information, water quality information, forecasted hydrology, planned SWP/CVP operations, and potential costs and benefits to the various interests.

As DWR will explain in our presentation to the Board, the WQCP objective for DCC gate operations has allowed the Ops Group to develop and implement through the DAT a flexible, real-time management process, known as the Salmon Decision Process. The enclosed Exhibit DWR-3 outlines the Salmon Decision Process. The Ops Group, the DAT, and the Water Operations Management Team (State and Federal agency managers) use the Salmon Decision Process in coordination with the CALFED Environmental Water Account (EWA) and federal CVPIA programs to adaptively manage the needs of fish. The coordinated use of water available under the CALFED EWA and federal CVPIA results in balanced operations of the DCC for fish, water quality, and water supply. In recent years the agencies have used the coordinated actions under the Salmon Decision Process to call for DCC gate closure for additional days beyond the SWRCB 45-day maximum. Importantly, since 2000 with the availability of EWA water to balance the needs of fish and water supply, the agencies have been able to agree on periods for gate closure to benefit fish where the relative benefits to the species "as a whole" may not have been clear but conservatively desirable.

Throughout the years, DWR and Reclamation Project operators have learned through experience how opening and closing the DCC gates can effect salinity in the interior Delta. As explained by Reclamation at the October SWRCB Workshop, the DCC gates were constructed in the 1940s to help improve water quality in the interior Delta during certain conditions. DWR SWP operator, Curtis Creel will discuss at this Workshop some basic hydraulics in the area of the DCC and the methods used by DWR and Reclamation to affect Delta salinity. These operations must also consider impacts to fish to satisfy regulatory requirements under water right Decision 1641 and the Endangered Species Act (ESA).

In 2004 NOAA Fishery and USFWS issued Biological Opinions for salmonids and for delta smelt, respectively, for impacts to the endangered fish from SWP and CVP operations. Reclamation submitted a 2004 Biological Assessment to the federal fishery agencies that describes the SWP and CVP

operations that are the basis for the ESA consultations. The Appendix B of the Biological Assessment describes the Salmon Decision Process. Department of Interior has submitted the Assessment to the SWRCB as an Exhibit for these Workshops. In the Assessment, DWR and Reclamation commit to following the Salmon Decision Process to protect salmon when operating the DCC gates. Because the fishery agencies rely on this project description when preparing their opinions, if DWR and Reclamation no longer followed the Process, they could be required to reinitiate consultation to consider impacts to fish because of such a change.

The ESA biological opinions and SWRCB D-1641 provide a regulatory framework for assuring that use of water exported from the Delta is balanced with the use of this water for fish and water quality. The participation of fishery agencies in the CALFED Ops Group and DAT help develop reasonable recommendations to satisfy the water needs of fish in a flexible and adaptive process. The water provided by EWA removes some of the political tension between fish advocates and water users and is only possible outside of a regulatory arena. Because the WQCP objective already supports reasonable protection for fish, water quality and water supply through this adaptive process, the Board need not, and should not, upset the existing Salmon Decision Process by adding additional days of DCC gate closure to the WQCP objective.

Studies and Screens at Delta Cross Channel Gates

The CALFED Bay-Delta Program, now administered by the California Bay Delta Authority (CBDA), includes as part of its Conveyance Program, a proposed action to "improve flood protection and conveyance facilities in the North Delta for water quality and fishery improvements, and avoid water supply disruptions" (CALFED Bay-Delta Programmatic Record of Decision, August 28, 2000, p. 50). On November 28, 2000, CALFED published a "Study Plan to Evaluate Improved Operational Procedures for the Delta Cross Channel and a Screened-Through Delta Facility" ("Study Plan," enclosed as Exhibit DWR-1).

The CALFED Delta Cross Channel/Through-Delta Facility project team prepared the Study Plan. These studies are in progress but because of funding and staffing difficulties they will not be completed for a few years. During the last several years, interdisciplinary studies, or experiments, have focused on hydrodynamics and fish behavior and movement patterns in the near vicinity of the DCC. Jon Burau, of the U.S. Geological Survey (USGS), presented results of such a study to the SWRCB at the October 27 Workshop. Many reports, however, have yet to be completed and no conclusions or recommendations have been made for a long-term DCC re-operation or modification.

During today's Workshop, Reclamation and DWR engineers will provide a status of DCC studies, including an overview of future studies. Since the early studies, DWR has assisted CALFED and Reclamation in managing the DCC

studies. About a year and a half ago, DWR began administering the interagency contracts for the different DCC studies on behalf of the CBDA. DWR has provided the funding for the DCC studies but the federal government is expected to also provide funding in the near future.

The USGS is taking the lead in conducting the DCC technical studies. USGS designed and conducted the hydrodynamics study, fish movement study, and flow monitoring studies in the DCC in cooperation with Reclamation, USFWS, and DFG. USGS is currently designing the planned 2005 full-scale study. USGS is responsible for synthesizing the results of all the DCC studies. These studies are being coordinated and reviewed by the CALFED Science Program.

Screening of the DCC is not addressed in the recent studies. The current CALFED DCC study effort is focused on understanding when and under what conditions juvenile salmon become entrained in the DCC. Although screening ideas at the DCC have not been completely discarded, CBDA is aware that past studies found that screening the DCC is not practical. The 1991 study by the Fish Facilities Subcommittee of the Five Agency Delta Salmon Team concluded that none of the screen designs that were considered at the DCC were feasible due to various problems, including tidal action, and clogging and cleaning problems (See enclosed Exhibit DWR-2, "Evaluation of the Feasibility of Protecting Downstream Migrant Chinook Salmon Smolts in the Sacramento River and San Joaquin River with Physical Facilities," July 15, 1991, p.56). The 1983 Governor's Water Plan considered screening the DCC and Georgiana Slough and concluded it was infeasible due to the need for the large surface area of the screen material requiring major relocations of the towns of Locke and Walnut Grove. In 1998, consideration of the known state-of-the-art screening and diversion options didn't allow for adult passage upstream. Today more advanced screening options may be available but would be very expensive. Additional concern over screening the DCC would be dealing with recreational boat access and safety issues.

In conclusion, some of the possible options for changes to the DCC gate could be very costly. Until CBDA is able to complete the proposed studies, there is no clear identification of the cost and benefit associated with possible changes to the DCC and its operation. With additional information provided by planned CBDA studies, possible alternatives to DCC gate operations may be developed. Therefore, DWR recommends that the SWRCB not propose any revisions to the WQCP that would require changes to the DCC gate facility or operations.

Narrative Objective for Salmon Protection

DWR recommends that the SWRCB not change the narrative objective for salmon protection on Table 3 of the WQCP. The objective establishes a water quality measure requiring water quality conditions to be "maintained, together

with other measures in the watershed, sufficient to achieve a doubling of natural production of salmon from the average production of 1967-1991." The joint presentation by the State Water Contractors and the Central Valley Project Contractors at this Workshop will present salmon studies and data demonstrating the methods used to assess the status of salmon populations with respect to the doubling objective. They also will identify some of the projects being undertaken through the CALFED Bay Delta Ecosystem Restoration Program (ERP) and the CVPIA anadromous fish program to increase salmon populations. In addition, State law establishes the policy to increase the State's salmon and steelhead trout resources and directs the Department of Fish and Game to develop a plan and program to double the salmon and steelhead resources (Fish and Game Code Sections 6900 et seq.). These programs and the WQCP Program of Implementation (POI) already establish a sufficient regulatory framework to address the difficult task involved in achieving this goal.

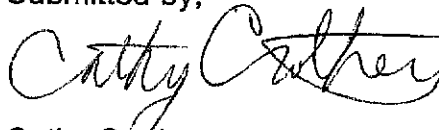
The WQCP POI for the narrative objective, however, notes that monitoring results are to be considered during the WQCP periodic reviews to evaluate achievement of the objective and development of numeric objectives (WQCP p. 28-29). The Bay Institute commented at the October Workshop that the narrative "doubling" objective for salmon was reasonable and need not be amended, although it recommended that numeric objectives should be adopted in the tributaries upstream of the Delta. The SWRCB commented that it was interested in hearing ideas on actions in the watershed upstream of the Delta to achieve the salmon objective. Because such actions would be upstream of the Delta, DWR recommends that the SWRCB consider implementation by other agencies, such as regional water quality control boards or CBDA, as part of the POI. In addition, DWR requests that the SWRCB continue to receive information on proposed actions for upstream salmon doubling objectives during the February 2005 Workshop on the POI.

Improved Screens at Clifton Court Forebay

At the October Workshop, the Board inquired whether improved screening at the SWP was being pursued as the screens help protect fish in the delta. Under the CALFED Bay-Delta ROD adopted in August 2000, DWR performed some preliminary analyses of the installation of new positive barrier screens and fish salvaging facilities in front of the Clifton Court Forebay. The cost of such improvements is estimated to exceed \$1 billion. About two years ago, the estimate of high costs motivated CBDA to form a special management group called the South Delta Fish Facility Forum to evaluate and provide guidance on fish facility improvements. The Forum has not yet made final recommendations on screening alternatives, however, they are expected to recommend that CBDA develop assurances through the 10-year finance plan to implement alternative important strategies that are more productive in accomplishing fish population targets. It is hoped that this strategy will be included in the program plans of the

Conveyance, Ecosystem Restoration, and Science programs and the Environmental Water Account. Under the Conveyance Program for the Clifton Court Forebay, for example, it has been discussed that there may be more cost-effective alternatives to reducing the predation occurring in the Forebay that we should be evaluating. The Forum is scheduled to meet on December 7 to discuss their strategy and recommendations which are expected to include screening alternatives. After the Forum makes its final recommendations to CBDA, and CBDA makes its decision on those recommendations, DWR will forward this information to the Board and Board staff.

Submitted by,

A handwritten signature in cursive script that reads "Cathy Crothers". The signature is written in black ink and is positioned above the printed name.

Cathy Crothers
Senior Staff Counsel