

STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD

In the Matter of Conditional	)	ORDER:	WR 89-20
Temporary Urgency Change Order on)		
Permits 15026, 15027 and 15030,	)	SOURCES:	North Yuba, Yuba,
Applications 5632, 15204 and 15574	)		and Middle Yuba
	)		Rivers and Oregon
YUBA COUNTY WATER AGENCY,	)		Creek
Permittee.	)	COUNTIES:	Yuba, Nevada,
	)		Butte and Sutter

ORDER VALIDATING THE ISSUANCE OF A
CONDITIONAL TEMPORARY URGENCY CHANGE ORDER
TO ADD A POINT OF REDIVERSION
ADD A PURPOSE OF USE AND PLACE OF USE
TO DELIVER WATER TO THE GRASSLAND WATER DISTRICT

BY THE BOARD:

The Yuba County Water Agency (YCWA) having filed a petition for a temporary urgency change in point of rediversion, purpose of use and place of use pursuant to Chapter 6.6 (commencing with Section 1435), Part 2, Division 2 of the Water Code; the State Water Resources Control Board (Board) having consulted with the Department of Fish and Game (DFG) and the Department of Water Resources (DWR); Board Chairman Maughan having issued a conditional temporary urgency change order on August 23, 1989 subject to review and validation by the Board within 30 days as provided by Water Code Section 1435(d); the Board finds as follows:

SUBSTANCE OF THE PETITION:

1. On August 8, 1989, YCWA at the request of DFG, petitioned the Board to authorize temporary changes to Permits 15026, 15027 and 15030, to be effective from the date of the approval through November 30, 1989.

2. The petitioned changes are to: 1) add a point of rediversion at the State Water Project's (SWP) Clifton Court Forebay, the intake to the Harvey O. Banks Pumping Plant (SWP Banks), which is operated by DWR in the Sacramento-San Joaquin Delta, 2) add the Grassland Water District (Grassland) to the place of use and 3) add wildlife enhancement as a purpose of use in the permits.

3. The petition proposes that 39,000 af of water in YCWA's New Bullards Bar Reservoir be released for use at the discretion of DFG¹. The water would be exchanged with DWR for water presently held in Lake Oroville before September 30, 1989. The DWR exchange water would be released from Lake Oroville in October and November and 30,000 af rediverted through SWP Banks and the California Aqueduct to supply Grassland for fish and wildlife enhancement use.

¹ The water at New Bullard's Bar previously was intended for delivery to the East Bay Municipal Utility District (EBMUD) but was not utilized by EBMUD due to the availability of water from other sources.

As proposed at the June 13 hearing, the transfer at Marysville would have been at a rate up to 1,307 cfs to be completed by September 30, 1989. The amendment to the petition submitted on July 12, 1989, however, requests that the period of the transfer be extended through December 31, 1989. The delivery to Santa Clara and Tulare would result in export diversions from the Sacramento-San Joaquin Delta (Delta) by up to an estimated 160,500 af during 1989. Carriage water losses to offset the effects on salinity levels of increased Delta pumping account for the remainder of the 200,000 af of the proposed water transfer. The actual amount of carriage water would depend upon conditions in the Delta at the time of export.

The transferred water (minus carriage water) would be delivered to long-term State Water Project (SWP) water supply contractors using the Harvey O. Banks Pumping Plant northwest of Tracy. Water made available by the transfer would result in reducing ground water pumping from overdrafted basins in Santa Clara and Kings Counties which have been severely impacted by three consecutive dry years. Rationing has been imposed in Santa Clara's service area and Kings County has been declared a drought disaster area.

Although there was no evidence introduced which demonstrates a wasteful or unreasonable use of water in either area of use proposed in the transfer, the Board must stress the importance of making efficient use of all water supplies available to any water user. In this regard, the Board takes official notice of past Board proceedings in which the reuse of previously contaminated ground water in Santa Clara County was at issue. In order to ensure that maximum beneficial use is made of water from all sources, the Board believes it is important for the Santa Clara Valley Water District to take an active role in encouraging the maximum use of existing water supply before seeking additional imports.

3.0 **SUBSTANCE OF PERMITS**

3.1 Permit 15026 (Application 5632)

Permit 15026 is for direct diversion and storage. Direct diversion is authorized from the North Yuba River and Yuba River for 43 cubic feet per second (cfs) and 1,550 cfs, respectively, from September 1 through June 30. Storage under Permit 15026 is authorized in Bullards Bar of up to 490,000 acre-feet per annum (afa) from October 1 to June 30 of each year.

3.2 Permit 15027 (Application 15204)

Permit 15027 is for storage from the North Yuba River and Yuba River. Storage is authorized in Bullards Bar of up to 240,000 afa from October 1 to June 30 and storage is authorized in the Marysville Afterbay for 6,000 afa from October 1 to June 30 of each year.

3.3 Permit 15030 (Application 15574)

Permit 15030 authorizes storage in Bullards Bar of up to 150,000 afa from the Middle Yuba River, 44,000 afa from Oregon Creek, and 320,000 afa from the North Yuba River from October 1 to June 30 of each year from the source.

3.4 Existing Purpose of Use and Place of Use

The purposes of use presently specified in all the permits covered by the petition are domestic, flood control, irrigation, industrial, recreational, and fish mitigation and enhancement. The place of use is a net irrigable area of 102,989 acres within a gross area of 121,366 acres within the service area of Yuba County Water Agency.

4.0 **COMMENTS AND OBJECTIONS TO PROPOSED TRANSFER**

Notice of the proposed transfer of water and the petition for changes was provided by mail to interested

parties. The Board received responses from DWR and four interested parties as summarized below.

4.1 Department of Water Resources

The Department of Water Resources filed a letter dated April 21, 1989 explaining that it has been working in coordination with the U. S. Bureau of Reclamation (USBR), the Department of Fish and Game (DFG) and YCWA to assure that adequate flows are maintained in the Yuba River for the protection of the shad fishery. DWR presented evidence at the June 13 hearing in support of the proposed transfer as part of a joint presentation with YCWA.

4.2 Department of Fish and Game

The Department of Fish and Game offered a policy statement in support of the proposed transfer at the June 13 hearing. DFG's support was based, in part, upon their conclusion that flows in the Yuba River will be maintained at or above 400 cfs during the fall and spring months and upon assurances from DWR, the USBR, and YCWA of the willingness of all agencies to coordinate operations with DFG for the benefit of fishery resources throughout the Delta watershed.

In response to a question, Dick Daniel of DFG testified that their analysis was based on existing required conditions, which DFG concluded would not be violated by the transfer. Mr. Daniel also testified, however, that DFG has ongoing concerns regarding the endangered winter run Chinook salmon and concerns about impacts on this race of salmon from the possibility of increased exports in November and December. According to Mr. Daniel, one possible benefit of the proposed YCWA water transfer is that it could allow for an indirect exchange of water between the SWP and CVP with the net result of reduced water temperatures in the Sacramento River. Reducing water temperatures in the fall would be beneficial to the fall and winter run Chinook salmon.

4.3

U. S. Fish and Wildlife Service

The U. S. Fish and Wildlife Service (USFWS) filed a letter dated April 21, 1989 expressing several concerns about the proposed transfer. Based on the fact that this is the third year of temporary water transfers from YCWA, the USFWS stated that the time "may well have arrived" to conduct an environmental impact report on the direct and indirect effects of the transfers. The USFWS letter referred to enclosed copies of letters

and written testimony which the agency had submitted in response to previous YCWA transfer proposals. (See Sections 5.2 through 5.4.) USFWS emphasized that the potential impacts of the transfer on fishery resources are dependent upon precipitation in the coming winter and on the eventual disposition of any carryover storage in Lake Oroville enabled by the transfer.

The letter also expressed USFWS' opinion that the transfer would result in adverse impacts to fishery resources in the Delta estuary. USFWS stressed its opinion that the water quality standards established by Decision 1485 provide inadequate protection for the Delta fishery. USFWS concluded with the request that if the transfer is approved, the Board should require detailed after-the-fact evaluations of hydrological changes and fishery impacts until such time as the effects of the transfer are hydrologically obscured by a major winter time release or spill from both Oroville and New Bullards Bar Reservoirs.

USFWS appeared at the June 13 hearing to expand upon the points raised in its April 21, 1989 letter and to enter comments and written testimony on previous YCWA water transfers into the record. Written testimony

USFWS at the Fish and Wildlife hearing emphasized the USFWS

opinion that the indirect adverse impacts of Delta exports on the fishery are not well understood and are inadequately mitigated by the Decision 1485 water quality standards. Mr. Morat asked that the endangered species status of the winter run Chinook salmon be considered and pointed out that reduced Delta outflows in the spring of 1990 could affect juvenile winter run Chinook salmon out migration.

Due to the limited information regarding project operations which was available to USFWS and the inherent uncertainty in predicting post-transfer impacts without knowing the hydrology of the coming water year, Mr. Morat did not express an opinion on the question of whether the transfer would unreasonably affect fish, wildlife or other instream beneficial uses. Mr. Morat repeated the previously expressed USFWS request that if the transfer is approved, it should be conditioned to require monitoring and documentation of the effects of the transfer on flows water temperature and Delta outflow.

4.4

California Sportfishing Protection Alliance

The California Sportfishing Protection Alliance (CSPA) submitted several letters commenting on the proposed YCWA/DWR water transfer and other proposed YCWA water

transfers. CSPA raised a number of objections to the proposed transfer and the procedure which the Board utilized to solicit comments in order to evaluate the proposed transfer.

In addition to alleged procedural deficiencies, CSPA alleged that higher minimum flows should be required in the Yuba River than those flow levels specified by the Board in connection with previously approved YCWA transfers, that approval of the petition would allow the continuation of an allegedly "unauthorized" diversion of water against which CSPA previously filed a written complaint, that approval of the petition would violate the public trust doctrine, that the Board must consider effects upon endangered species, and that YCWA must demonstrate that the transfer benefits the fishery.

With respect to the issues raised by CSPA, the Board finds that the group's major concerns are the potential effects of the proposed transfer on fishery resources and endangered species. These issues are addressed in Sections 10.2 through 10.2.7 of this order. The considerations and protections provided to these resources in this order constitute compliance with the Board's responsibility under the public trust doctrine

as required by the California Supreme Court in National Audubon Society v. Superior Court (1983) 33 Cal.3d 419. The issues raised by the CSPA complaint against ongoing YCWA water diversion operations on the Yuba River are the subject of a separate investigation. Consequently, questions of appropriate revisions to permit conditions governing the long-term operation of YCWA's Yuba River facilities are not before us in the present proceeding. Rather, the focus of the present proceeding is to evaluate the effects of the proposed transfer compared to those conditions which could be expected to exist in the absence of the transfer.

In response to the alleged procedural deficiencies, the Board notes that, following receipt of the petition, the Board provided potentially interested parties with written notice and the opportunity to comment upon the proposed transfer, despite the absence of any statutory requirement to do so. In response to issues raised in the comments, the Board held an evidentiary hearing at which CSPA participated. In addition, the Board notified both the USFWS and DFG of the proposed transfer and received written comments from both agencies in addition to those agencies' participation in the hearing. The Board concludes that all applicable procedural requirements have been met.

Finally, we note in passing that CSPA provides no support for its sweeping contention that approval of the transfer requires YCWA to "affirmatively demonstrate" that the proposed changes "benefits anadromous fish" as well as "water quality, endangered species, recreation (i.e., sportfishing), small craft navigation, esthetics, open spaces, the natural resources of the area and the ecological aspects of the area which provides food and habitat for fish and wildlife using the area." (See letter dated April 19, 1989 from Robert J. Baiocchi, CSPA Executive Director, to Division of Water Rights and California Department of Water Resources.)

4.5

Bay Institute of San Francisco

The Bay Institute of San Francisco appeared at the June 13 hearing in opposition to the proposed transfer. The Bay Institute alleged that: (1) the Board did not evaluate the effects of the proposed transfer on other legal users of water, fish, wildlife, and other instream beneficial uses; (2) the Board possesses evidence that the transfer could unreasonably affect fish and wildlife in the San Francisco Bay/Sacramento-San Joaquin Delta estuary; and (3) the proposed transfer could increase the loss of juvenile winter run

king (Chinook) salmon which were recently classified as endangered species under California's Endangered Species Act. Therefore, the Bay Institute concludes that the proposed transfer does not comply with the requirements specified in Water Code Section 1725 et seq. governing temporary transfers of water.

The Bay Institute presented written and oral testimony in support of the allegations specified above. In particular, the Bay Institute stressed the alleged threat which summer and early autumn Delta pumping cause to juvenile winter run Chinook salmon; the projected reduction in fall run king (Chinook) salmon habitat in the Yuba River due to reduced winter flows; and the fact that unallocated surplus water from the Yuba River has, in the past, afforded additional protection to fish and wildlife beyond that provided by the standards established in Decision 1485.

4.6

United Anglers of California

The United Anglers of California filed a letter dated May 4, 1989 expressing their concern about the condition of the fishery on the Yuba River in recent years. A representative of the United Anglers appeared at the hearing to stress the necessity of addressing fishery problems on the Yuba River and the desirability

of instituting a cooperative approach to water management utilizing the expertise of the Department of Fish and Game.

5.0 **BACKGROUND**

5.1 Pre-Transfer Operation of New Bullards Bar Reservoir

Permits 15026, 15027, and 15030, were issued pursuant to Applications 5632, 15204, and 15574 following a Board hearing and the Board's adoption of Water Right Decision 1159 on December 19, 1963. The permits authorized storage in Bullards Bar, which is formed by a concrete-arch dam completed in 1968 on the North Yuba River. Pacific Gas and Electric Company (PG&E) is entitled, under contract, to any power generated until the year 2016. In the past, PG&E requested releases of YCWA "unallocated surplus water" to maximize power generation. In 1985, the Agency began restricting releases made for PG&E to the minimums specified in the power contract. The YCWA/PG&E contract includes minimum fish flow release requirements specified by the California Department of Fish and Game. The Federal Energy Regulatory Commission license for the Yuba River development (Project 2246-001) includes similar bypass flow requirements.

5.2

1987 Transfer

Water year 1987 was classified as a critically dry year. Therefore, YCWA cut back Yuba River releases to about 77 cfs on July 1, 1987. Flows were increased gradually until August 15, 1987, when a temporary permit change due to a transfer of water to DWR became effective pursuant to Water Code Section 1727. A total of 83,100 af was transferred to DWR during the summer of 1987, allowing for an equal amount of carryover storage in Lake Oroville into 1988.

5.3

1988 Transfers

Water year 1988 was also critically dry, so YCWA transferred 122,000 af of water to DWR under the provisions of Water Code Sections 1735 et seq. and 1435 et seq. for State Water Project use in meeting Delta outflow requirements. SWRCB Order WR 88-12 authorized transfer of 110,000 under Water Code Section 1735. SWRCB Order WR 88-17 modified and validated an August 19, 1988 order by Chairman Maughan which allowed transfer of 12,000 af to DWR pursuant to Water Code Section 1435. The stated purpose of the 1988 transfers was to increase carryover storage in Lake Oroville for 1989. The transfers were completed in about 90 days with transfer rates of about 750 cfs. Both transfers

were subject to instream flow requirements agreed to by DFG.

The 1988 transfer ended September 30, 1988. Ambient air temperatures in the lower Yuba River area were generally about 10 degrees above normal during October and the first week of November. Later in November, the USFWS reported that Yuba River water temperatures in October were higher than those believed necessary for successful salmon spawning. Similar temperature readings were confirmed by YCWA. In December, CSPA expressed concern to the Board about the USFWS findings. CSPA attributed the higher than optimum river spawning temperatures to the transfer, alleging that the temperatures of the additional flows in the river (400 cfs instead of 280 cfs) were warmer because of the transfer. Staff contacts with YCWA on January 4, 1989 and a YCWA letter to DFG dated February 22, 1989, indicate that water was released through the lowest outlet pipes during the period in question.¹ YCWA's letter to the Board dated March 1, 1989 states that released water was about 44°F throughout the hot spell. YCWA also contends that sufficient water was maintained in the reservoir to

¹ Reservoir releases through the lowest outlet pipes would utilize deeper, generally cooler water.

assure that no temperature change occurred in water at lower reservoir levels.

5.4 Operations and Transfers During 1989

Bullards Bar was held at the U. S. Corps of Engineers flood storage limit of 800,000 af for March. The remaining seasonal inflow was estimated to exceed 600,000 af. Local water demands were projected at about 271,000 af and instream flow requirements were projected to require about 266,500 af. A proposed transfer of up to 78,000 af of water to East Bay Municipal Utility District (EBMUD) which was approved by the Chief of the Division of Water Rights on April 3, 1989, has been deferred indefinitely because of the increased availability of water to EBMUD from other sources. The transfer of 7,000 af to several municipalities in the Napa Valley (NAPA) was approved by the Chief of the Division of Water Rights on April 3, 1988. That transfer is continuing at a rate of up to 21 cfs. On March 28, 1989, YCWA filed a petition for transfer of up to 200,000 af. to DWR during the summer of 1989. The March 28 petition as amended on April 11, 1989 and June 14, 1989, is the subject of the present order.

6.0 **PRESENT STATUS OF RESERVOIRS AFFECTED BY PROPOSED TRANSFER**

6.1 Bullards Bar

Bullards Bar is located about 29 miles northeast of Marysville on the North Yuba River. The reservoir has a total storage capacity of 961,300 af with a usable capacity of 727,400 af. Permits 15026, 15027, and 15030 limit collection to storage in Bullards Bar to 960,000 af in any year. Due to favorable precipitation in March, Bullards Bar filled and spilled in March 1989.

6.2 Oroville Reservoir

Lake Oroville is located about two miles northeast of the City of Oroville. Lake Oroville has a total storage capacity of about 3,537,600 af with a usable capacity of about 2,685,400 af. DWR reports that as of June 8, 1989, there were 3,242,600 af in storage at Oroville, leaving about 295,000 af of unused capacity available. If the proposed transfer is approved, releases from Oroville or other reservoirs would be reduced during the transfer period in exchange for the water made available to DWR by YCWA.

6.3 San Luis Reservoir

San Luis Reservoir is a joint-use SWP/Central Valley Project (CVP) facility located south of the Delta,

northwest of the City of Los Banos. Water may be stored in San Luis Reservoir during the winter and released during the summer to meet the peak summer delivery demands of SWP and Central Valley Project (CVP) water contractors. The reservoir has a total storage capacity of 2,027,835 af. The SWP's portion of the capacity is 1,062,180 af and the USBR CVP portion is 965,655 af. As of June 8, 1989, the SWP had 677,895 af in storage and the USBR had 439,739 af, leaving about 910,000 af capacity available for regulatory use during the summer and fall of this year.

6.4

Coordination of SWP and CVP Reservoir Operations

Testimony given by DFG at the hearing indicated significant concern about the effects of the drought on the amount and temperature of stored water available for release into the upper Sacramento River from Lake Shasta. DFG is particularly concerned about how releases from Lake Shasta may effect fall and winter run salmon. As a result of the coordinated operations of the SWP and the federal CVP, the amount of water in storage in either project can influence the operations of the other project. In order to maximize benefits for fishery resources, YCWA, DWR and DFG all stressed the desirability of coordinating operations between the SWP, the CVP and other major facilities in the Delta

watershed. To the extent that various facilities have operational flexibility in meeting the requirements imposed by governmental agencies and the water demands of their users, the Board supports coordinated operation for the benefit of fishery resources in accordance with direction from DFG.

7.0

DESCRIPTION OF PETITIONED CHANGES

The petition states that the transfer involves rescheduling releases of up to 200,000 af of additional Bullards Bar water between July 1, 1989 and September 30, 1989. The July 12 amendment to the petition requests that the period of the transfer be extended through December 31, 1989. Any projected amount of Bullards Bar storage in excess of 536,000 af on September 30 is considered to be "unallocated surplus water". It is available for release from storage under YCWA permits into the Yuba River, to flow into the Feather River, thence the Sacramento River, and on to the Delta for export, carriage water, or use in partially meeting Delta outflow requirements. The transfer proposes that a portion of the YCWA storage releases would replace a similar amount of SWP water that would be retained in Lake Oroville for delivery to Santa Clara in 1989 and 1990. The other portion of water covered by the transfer would be released into

the Yuba River to flow downstream to the Delta for export to Tulare.

The most recent information submitted by DWR indicates that, during the transfer, flows in the Yuba River at Marysville would be increased by YCWA from about 70 cfs minimum, to about 1,140 cfs during the remainder of July, 1,117 cfs during August and September and 700 cfs during October, November, and December. Feather River flows above the confluence with the Yuba River, would be reduced by DWR, but are not expected to be less than about 2,000 cfs. Flows in the Feather River below its confluence with the Yuba River would be increased as a result of the transfer.

8.0

AVAILABILITY OF WATER FOR TRANSFER

As stated in Section 6.1, Bullards Bar has a capacity of 961,300 af and a usable capacity of 727,400 af. YCWA expected up to 946,613 af to be in storage on June 30, 1989. Operations studies indicate that if 536,000 af remains in storage on September 30, 1989, YCWA could satisfy local demands in 1990, even if winter runoff in the basin were to equal the driest on record. John Teerink of Bookman-Edmonston Engineering testified that if 200,000 af were transferred to DWR, in addition to the water required for local diversions,

instream requirements and the Napa Valley transfer, there would still be 127,000 af in storage above the 536,000 af carryover storage objective. If EBMUD were to take the 78,000 af which it could claim, there would still be nearly 50,000 af surplus in Bullards Bar above the September 30, 1989 objective of 536,000 af.

9.0

NO INJURY TO LEGAL USERS OF WATER

Notice of the proposed temporary transfer was sent to the known water diverters that could potentially be affected by the temporary transfer. No objections were received from such water users nor was any evidence presented at the hearing to show that the temporary transfer will result in injury to any legal user of water. The operations studies discussed in Section 8.0 demonstrate that water is available for transfer without injury to legal users of water within the YCWA service area. No water quality problems were identified during consultation with the Central Valley Regional Water Quality Control Board, nor was any evidence presented at the June 13 hearing of water quality problems related to the proposed transfer. In accordance with Water Code Section 1727(a)(1), the Board concludes that the proposed temporary transfer will not cause injury to any legal user of water.

10.0 **ENVIRONMENTAL CONSIDERATIONS**

10.1 Exemption from the California Environmental Quality Act

Pursuant to Water Code Section 1729, the proposed temporary transfer is exempt from the requirements of the California Environmental Quality Act (CEQA) (Division 13, Section 21000 et seq. of the Public Resources Code). However, Water Code Section 1727 authorizes approval of the proposed temporary transfer only upon a finding that the transfer would not injure any legal user of water and would not unreasonably affect fish, wildlife or other instream beneficial uses. Potential impacts to fish, wildlife and other instream beneficial uses are considered in Sections 10.2 through 10.2.7 below in accordance with statutory requirements.

10.2 Effects on Fish, Wildlife or Other Instream Beneficial Uses

Water Code Section 1727 requires the Board to make an evaluation sufficient to make a finding that the proposed temporary transfer would not unreasonably affect fish, wildlife, or other instream beneficial uses. If the Board cannot satisfy this requirement within 60 days following receipt of notification of the proposed temporary transfer, it must schedule a hearing to consider the effects of the transfer. In the case of the proposed YCWA/DWR temporary transfer, the Board

determined that it could not make the required finding within 60 days. This determination was due, in large part, to questions raised in comments on the proposed transfer filed in response to the Board's April 12, 1989 notice of the proposed transfer (see Section 4.0 above).

The Board scheduled the June 13, 1989 hearing to obtain further evidence regarding the effects of the proposed transfer on fish, wildlife, or other instream beneficial uses. The Board reopened the record for submission of additional evidence following amendment of the petition on June 14, 1989 and following discussion of the proposed transfer at the July 5, 1989 Board meeting. Additional submittals by interested parties were due by July 12, 1989 and any written rebuttals were due by July 17, 1989.

10.2.1 Effect of Transfer on Flows and Delta Exports

The minimum fish flow in the Yuba River this year under the 1965 agreement with the Department of Fish and Game is 70 cfs from July 1 to September 30, and 400 cfs from October 1 to December 31. The agreement requires minimum flows of 245 cfs from January 1 through June 30, 1990, if 1990 is a normal or above runoff year. However, in accordance with the provisions of

the Board's April 3, 1989 orders, YCWA is required to maintain 400 cfs in the Yuba River during the months of April, May, June, October, November, and December of 1989 and during the months of January, February, and March of 1990.

The transfer would also result in less water being held in storage at Bullards Bar. Therefore, depending on the hydrology of the coming year, flows in the Yuba River during the winter and spring may be reduced while YCWA stores water to make up for stored water releases made as part of the transfer. If the transfer is approved, DWR proposed at the hearing to reduce flows in the Feather River below Oroville, but flows are projected to remain well above the required minimum levels.

The most recent operations data submitted by DWR states that, with or without the transfer, DWR projects that Delta exports during September through December of 1989 are projected to be substantially above the average level of exports in recent years. The July 17, 1989 memorandum from DWR to Walter G. Pettit, Chief of the Division of Water Rights, states that the net effect of the transfer would be to increase Delta exports from October 16, 1983 through November 30 by 230 cfs.

The petitioner and DWR presented evidence establishing that the proposed transfer would not result in violation of existing flow requirements or water quality standards. Due to concern that existing requirements may be inadequate, the effects of the proposed transfer on several species of fish were addressed at the hearing.

10.2.2 Effect of Transfer on American Shad

Comments received with respect to YCWA transfers beginning earlier this year have expressed concern about proper temperatures for spawning of American shad in the lower Feather River. The proposed transfer of water from YCWA to DWR before the Board in the present period would not begin until July of this year -- well after the spring spawning period. No evidence was presented showing unreasonable effects on the American shad fishery in tributary areas from previous water transfers from YCWA to DWR in 1987 and 1988.

10.2.3 Effect of Transfer on Chinook Salmon in Yuba and Feather Rivers

Peak spawning of fall run Chinook salmon generally occurs in October and November. The evidence presented in support of the proposed transfer shows that flows in the Feather River during October and November would be

maintained at the same level with or without the transfer, and that such flows would be more than double the existing minimum flow standard of 1,000 cfs.

In response to the reopening of the record, DFG submitted a July 17, 1989 memo which recommends revised flow schedule and maximum temperature criteria for the Yuba River. The proposed schedule would increase the fall flows in the Yuba River at Marysville from 400 cfs to 700 cfs with ramping down 600 cfs in February and 400 in March. DFG also recommended changes in the temperature conditions proposed in the July 5 draft order because study results not available at the time of the hearing indicate that maintenance of a maximum daily temperature of 56° F at Marysville may take ten or more times as much additional flow (nearly 2,000 cfs extra rather than the 150 cfs extra testified to during the June 13, 1989 hearing). The rate of flow needed to maintain a temperature of 56° F could have adverse effects on the incubation and hatching of fall run salmon. Therefore the Board concludes that DFG's July 17, 1989 memorandum recommends appropriate instream flow and temperature requirements in the Yuba River from the date of this order through March 31, 1990.

10.2.4 Effect of Transfer on Winter Run Chinook Salmon

The California Fish and Game Commission recently declared winter run Chinook salmon in the Sacramento River to be an endangered species. Although there are no winter run Chinook salmon in the Yuba River, increased Delta exports of water originating in the Yuba River or elsewhere can affect winter run Chinook salmon which spawn in the Sacramento River. Section 2053 of the Fish and Game Code provides that state agencies should not approve projects which would jeopardize the continued existence of those species if there are reasonable alternatives available which would prevent jeopardy. Section 2054 goes on to provide that where alternatives to the project are infeasible, individual projects may be approved if appropriate mitigation and enhancement measures are provided. Section 2055 directs all state agencies, boards, and commissions to seek to conserve endangered species and to use their authority in furtherance of that goal.

In actions which are subject to CEQA, state lead agencies are required to consult with DFG to ensure that endangered species are not threatened as a result of state agency actions. (Fish and Game Code Section 2090.) Although temporary transfers of water are exempt from CEQA, the legislative determination that

DFG shall play a key role with respect to protection of endangered species is nevertheless very relevant to Board actions in instances where endangered species could be affected.

The testimony presented by the Bay Institute states that juvenile winter run Chinook salmon migrate through the Delta area in August, September and October a period which overlaps with the period of the proposed transfer. Other testimony presented by the USFWS, however, indicates that juvenile winter run Chinook salmon out migration commences in November. The most recent information provided by DFG concludes that the peak period of winter run Chinook salmon out migration runs from February through April, a period which is beyond the time during which Delta exports are expected to increase as a result of the proposed transfer. Consequently, DFG advises the Board that the transfer will not jeopardize the continued existence of the winter run Chinook salmon. As stated in Section 4.2, DFG believes that increased coordination in project operations enabled by the transfer could be used to reduce water temperatures to the benefit of the winter run salmon as well as the fall run salmon.

The evidence regarding the effect of the proposed transfer on the winter run Chinook salmon is conflicting. In recognition of DFG's status as the trustee agency of the state with respect to fish and wildlife, and in view of the Legislature's designation of DFG as the key state agency with respect to enforcement of the Endangered Species Act, the Board concludes that it is appropriate in this instance to defer to the judgment of DFG that the proposed transfer will not jeopardize the continued existence of the winter run Chinook salmon.

DFG requested that the Board condition any approval of the proposed transfer upon YCWA engaging in a "successful consultation" with DFG resulting in a finding that no unreasonable impacts to the winter run Chinook salmon would occur. In view of the Fish and Game Commission's determination that winter run Chinook salmon are endangered, the Board concludes that no export of water attributable to the proposed transfer should be made from the Delta until the petitioner and DWR have consulted with DFG and have implemented appropriate mitigation measures or alternatives substantially in accordance with the procedures set forth in Fish and Game Code Sections 2090 through 2097. In accordance with the Board's responsibility to

protect public trust resources, the Board concludes that the consultation and mitigation procedures specified in Sections 2090 through 2097 should apply notwithstanding the fact that temporary transfers of water are exempt from the requirements of CEQA (Public Resources Code Section 21000). In addition to consultation with DFG for the protection of endangered species, DWR should also be required to provide DFG and the Board weekly operations projections as described in Section 10.2.6.

In view of the concerns expressed by various parties about the lack of consistent data regarding winter-run Chinook salmon, the State Board concludes that this order should be conditioned to require DWR to obtain additional data and submit a report evaluating such data to the State Board, DFG, USFWS and others requesting copies. A condition requiring such reporting is included later in this order.

10.2.5 Effect of Transfer on Striped Bass

During the hearing, concern was expressed about the welfare of striped bass in the Delta. The striped bass index is currently extremely low. SWRCB Decision 1485 restricted pumping at the Banks pumping plant during May through July for the protection of fishery

resources, particularly salmon and striped bass. Fall run salmon are often present in the Delta before the restricted pumping period imposed by Decision 1485. Striped bass are often present after the close of this period. This information, together with the noted declines in striped bass and naturally spawned salmon under the existing standards, leads the Board to conclude that any additional export of water from the Delta enabled by the proposed transfer should exclude the months of April through August.²

10.2.6 Designation of DFG as Controlling Agency for Coordination of Project Operations

Testimony offered in the joint presentation of YCWA and DWR described how both agencies are currently working with DFG, USFWS, and the U. S. Bureau of Reclamation (USBR) to determine if there are means available to benefit Sacramento River salmon and other fisheries in the Central Valley through coordinated operation of the various water development projects. Assuring the Board that required minimum fishery flows would be met in any event, YCWA and DWR requested that:

² In order to achieve maximum beneficial use of limited water resources, particularly in dry years, the Board must make decisions based on available information in the context of the particular proceeding. The period of restriction on Delta exports expressed in this order should not in any way be construed as prejudgment by the Board of issues pending in the ongoing Bay-Delta hearing process.

"[T]he Department of Fish and Game be designated as the controlling agency in determining what operation modifications would best benefit the fisheries. The operating agencies would enact the plan developed by the fishery agencies as possible within their operations requirements and criteria."

As discussed in Section 10.2.4, the Board believes that requiring consultation with DFG as a condition of the release or export of stored or exchange water pursuant to the proposed temporary transfer will serve to mitigate or avoid potential adverse effects on fishery resources. Beyond this preventive measure, however, DFG's role in facilitating coordinated operations of DWR, the USBR and YCWA could lead to substantial benefits for the fishery. One example is the possibility of reducing water temperatures in the Sacramento River through an interagency water exchange at a time when lower temperatures would benefit the winter run Chinook salmon as described in Mr. Daniel's testimony. Based on the evidence in the record and the request of DWR, YCWA and DFG, the Board finds that DFG should serve as the controlling agency with respect to coordinating and determining short-term modifications in project operations related to the proposed transfer.

In order to provide DFG and the Board with the necessary information to evaluate the effect of the

transfer on fishery resources, DWR should provide, on a weekly basis, a schedule showing projected daily operations for the next two-week period and projected weekly operations for the remainder of the period in which water is exported from the Delta as a result of the transfer. The schedule should include the following information:

1. Projected flow in the Yuba River at Marysville
2. Projected flow in the Feather River at Gridley
3. Projected releases from Shasta Reservoir
4. Projected transfers from the Trinity River to the Sacramento River
5. Projected flow in the Sacramento River below Keswick
6. Projected pumping at SWP Banks
7. Projected pumping at CVP Tracy

Any changes in the flow projections made between the weekly submittals should be transmitted at the time they are made. The schedules will be deemed approved unless objections are raised by DFG or the Board. DWR should also provide the above information upon request of any other interested party.

In view of the inherent variability in factors affecting the migration, spawning and survival rates of Chinook salmon and other fish, optimum release

requirements cannot be specified months in advance. Therefore, the Board accepts the suggestion to designate DFG as the controlling agency to determine modifications in YCWA and DWR project operations which would benefit the fisheries. All project operations, of course, would remain subject to the conditions specified in the water right permits as well as operating criteria needed to meet flood control purposes. Similarly, the Board notes that the order which follows provides that all rights under this temporary change order remain subject to the continuing authority of the Board to protect public trust uses and to prevent the waste or unreasonable use of water.

10.2.7 Effect of Transfer on Bald Eagles

CSPA expressed concern about the possible effect of the proposed transfer on a pair of bald eagles nesting near Bullards Bar. There is evidence that during the 1977 drought, successful bald eagle reproduction may have been impeded by the low levels of water in certain reservoirs. As discussed in the negative declaration prepared in connection with the 1988 YCWA/DWR transfer, any young bald eagles produced by the nesting pair will have left the nest and the area by late June or early July. The reservoir drawdown resulting from the proposed transfer would not even begin until late July

and, thereafter, would occur gradually over a three-month period. The effect of the transfer would be well within the operational regime of the reservoir in past years. Therefore, the Board concludes the proposed transfer would not adversely affect bald eagles.

11.0 CONCLUSION

Approval of a proposed transfer of water pursuant to Water Code Section 1725 et seq. requires Board findings that: (1) the transfer would involve only the amount of water that would have been consumptively used or stored by the permittee or licensee in the absence of the transfer; (2) that the transfer would not injure any legal user of water; and (3) that the transfer would not unreasonably affect fish, wildlife or other instream beneficial uses. In this instance, the water proposed for transfer is already in storage at YCWA's Bullards Bar facility and the evidence presented establishes that the water may be transferred without injury to other legal users of water.

The issues in dispute relate to the potential effects of the transfer on fishery resources in the Yuba River, Feather River and Sacramento-San Joaquin Delta. With respect to the Yuba River and Feather River, the Board concludes that the flow and temperature requirements

specified in the order which follows are sufficient to protect existing fishery resources against unreasonable effects resulting from the transfer.

With respect to effects on fish in the Sacramento-San Joaquin Delta, the evidence presented at the hearing was much more limited. The lack of comprehensive knowledge about certain fish species, the inherent variability of fish migration, the possible effects of other variables, and our inability to foresee future hydrologic conditions make it difficult to predict the effect of a given water transfer upon the fishery. In this instance, the Board is particularly concerned about the additional export of water at the Banks pumping plant and the effect which such exports could have on the endangered winter run Chinook salmon. However, recent data provided by DWR indicates that the net effect of the transfer on Delta water exports will be relatively small when compared to the projected Delta exports of DWR and the USBR in the absence of the transfer. In addition, DFG has concluded that the transfer will not jeopardize the continued existence of the winter run salmon.

The law is clear that a determination of reasonableness with respect to water use decisions in California

requires an examination of all relevant factors. The demand for water in the proposed places of use is such a factor. With respect to Santa Clara Valley Water District, the evidence of need is compelling. The district provides water for domestic use to a service area having a population of over 1.4 million people. The area is in its third dry year, surface water supplies are extremely low, rationing has been imposed, and excess ground water pumping in the past has induced subsidence causing millions of dollars in damages. The record also shows that there is a great need for water in the Tulare Lake Basin area. Approval of the transfer will provide water for agricultural use in a drought stricken area and will reduce the need for ground water pumping in an overdrafted ground water basin.

In view of the fishery protection measures required by the conditions of this order and the lack of specific evidence of adverse effects of the transfer on fishery resources, the Board is inclined to look favorably upon approving the transfer. In addition, the fact that the rate and timing of additional Delta exports and releases of stored water from New Bullards Bar Reservoir will be subject to strict monitoring requirements by DFG persuades the Board to conclude

that the transfer will not have an unreasonable effect on fish, wildlife, or other instream beneficial uses.

With respect to determining the reasonableness of the effects of this limited temporary transfer on fishery resources, the Board reminds all parties that there is no assurance that next year will be any wetter than the previous three. Allowing a closely regulated transfer of water this year reduces the potential need for water delivery measures under possible emergency conditions at a time when fewer fishery protections could be provided. Through coordinated operations with the SWP and CVP, the transfer as conditioned in the following order may result in benefits or fishery enhancements which would not otherwise exist.

In summary, the Board concludes that the proposed temporary transfer of water from YCWA to DWR should be approved subject to the terms and conditions specified in the following order.

ORDER

NOW, THEREFORE, IT IS ORDERED that the Yuba County Water Agency (YCWA) notice of temporary transfer and petition for temporary changes is approved for up to 200,000 acre-feet (af) of water held in storage in New Bullards Bar Reservoir to the Department

of Water Resources (DWR) for municipal and industrial use in Santa Clara Valley Water District (Santa Clara) for irrigation in the Tulare Lake Basin Water Storage District and the Empire Westside Irrigation District, to meet associated carriage water requirements in the Sacramento-San Joaquin Delta (Delta) or to meet Delta outflow requirements, subject to the following terms and conditions:

1. The temporary transfer of water between YCWA and DWR is limited to the period commencing five days following the date of this order at a rate not to exceed 1,144 cubic feet per second (cfs) and continuing through December 31, 1989.
2. For the protection of fishery resources in the Yuba River and transfer of water authorized by this order, permittee shall maintain a total flow of at least 700 cfs in the Yuba River at the U. S. Geological Survey (USGS) gage near Marysville from October 1, 1989 through January 31, 1989; a mean daily temperature not to exceed 56° F at Daguerre Point Dam after October 15, 1989; and a mean daily temperature not to exceed 56° at the USGS Marysville gage after November 1, 1989 through March 31, 1990. Permittee shall coordinate release from Englebright Reservoir with the Department of Fish and Game with the objective of minimizing flow fluctuations and optimizing temperature conditions in the Yuba River. Flows

at the USGS gage near Marysville shall be not less than 600 cfs during February, and 400 cfs during March 1990.

3. Diversion and use of water authorized in this order shall be subject to all existing terms and conditions of Permits 15026, 15027, and 15030, and the April 3, 1989 orders approving the YCWA/East Bay Municipal Utilities District (EBMUD) and YCWA/City of Napa (Napa) temporary transfers, except as modified by this order.
4. Subject to agreement with DFG, YCWA water which is used for Delta outflow under this order may be exchanged for maintaining water in storage in Lake Oroville, Shasta Reservoir, Clair Engle Reservoir or San Luis Reservoir for delivery on a schedule more compatible with project operations and environmental objectives and requirements of this order.
5. DWR may divert or redivert up to 200,000 af of water (minus carriage water) under YCWA Permits 15026, 15027, and 15030 or exchange water made available for export by virtue of this transfer, using the SWP Banks Pumping Plant, the California Aqueduct, San Luis Reservoir and the South Bay Aqueduct from September 1, 1989 through March 31, 1990. The authorized point of diversion and rediversion is at the entrance of Clifton Court Forebay at:

California Coordinates, Zone 3, N 486,035;
E 1,695,057; within the NW¼ of SE¼ of projected
Section 20, T1S, R4E, MDB&M.

6. For the protection of fish, wildlife, and other instream beneficial uses in the Yuba, Feather, and Sacramento Rivers and the Sacramento-San Joaquin Delta, YCWA and DWR shall consult with DFG and adjust flows and pumping such that the proposed flow changes and operation attributable to this transfer will not unreasonably affect fish, wildlife, or other instream beneficial uses, with particular emphasis on the endangered winter run Chinook salmon.

7. From the effective date of this order through March 31, 1990, DWR shall, on a weekly basis, furnish DFG, the Board, and other parties who request it, a schedule showing projected daily operations for the next two-week period and projected weekly operations for the remainder of the export period. At a minimum, the schedule shall include anticipated:

Flow in the Yuba River at Marysville

Flow in the Feather River at Gridley

Releases from Shasta Reservoir

Transfer from the Trinity River to the Sacramento River

Flow in the Sacramento River below Keswick

Pumping at SWP Banks

Pumping at CVP Tracy

Any changes in the projections made between the weekly submittals shall be transmitted at the time they are made. The schedules shall be deemed approved unless objections are raised by DFG or the Board. Each agency shall designate a contact person for exchange of the above information.

8. No export of water attributable to the transfer approved in this order shall be made until the petitioner and DWR have consulted with DFG and have implemented appropriate mitigation measures or alternatives substantially in accordance with the procedures set forth in Sections 2090 through 2097 of the California Fish and Game Code.
9. Not later than the 20th of each month during transfer of water under this order, YCWA shall provide to the Board, DFG, USFWS and other parties who request it, provisional data indicating the minimum, maximum and mean daily river flows, the amounts of water designated for DWR, and the maximum daily water temperatures measured in the Yuba River at the USGS gage near Marysville during the preceding month. In addition, DWR shall provide similar data for the period indicating daily flow and temperatures measured in the Feather River at the USGS gage near Gridley.
10. Not later than May 1, 1990, YCWA shall provide to the Board, DFG, USFWS, and other parties who request it, a consolidated summary report showing the daily and cumulative quantities

of water transferred to NAPA, EBMUD, and DWR, as well as the maximum, minimum, and mean daily water temperatures measured at Daguerre Point Dam and the USGS gage near Marysville. The report shall include daily totals of water exported through the Delta by virtue of this transfer.

11. No later than June 1 of each year, until the effects of this and any subsequent transfers are obscured hydrologically by spills at New Bullards Bar Reservoir and Lake Oroville, YCWA and DWR shall submit a joint report to the Board, DFG, and the U. S. Fish and Wildlife Service. The report shall include a detailed, evaluation of hydrological changes (including secondary impacts) in the Yuba, Feather, and Sacramento Rivers and the Sacramento-San Joaquin Delta attributable to the interbasin transfer(s) of water to DWR, EBMUD, and NAPA under Permits 15026, 15027, and 15030. The report shall include an evaluation of whether these hydrological changes caused measurable impacts to fish, wildlife, and other instream beneficial uses compared to without transfer conditions and an assessment of the significance of these impacts.

12. Not later than September 1, 1989, DWR and DFG shall submit to the Chief of the Division of Water Rights, a Delta diversion monitoring and reporting program proposal to provide additional data to measure and evaluate any effects of the

additional pumping at Banks pumping plant associated with this transfer and the cold water banking operation for the winter-run Chinook salmon.

The monitoring program shall include but need not be limited to (1) daily and monthly pumping rates at Banks; (2) total numbers of fish salvaged at the Skinner Fish Protective Facility each day; and (3) the daily numbers and lengths of various types of fish caught, including total salmon, salmon by various run classification, striped bass, steelhead rainbow trout, American shad, and Delta smelt. Upon approval by the Chief of the Division of Water Rights, the program shall be implemented and a report on the program submitted to the Board not later than May 1, 1990.

13. By April 1, 1990, YCWA and DWR shall jointly submit to the Board a specific and detailed plan for carrying out the environmental studies required in condition 9.5 of Board Order WR 88-12. The study plan shall be prepared in close consultation with DFG and include at least the following items:
 - a. A description of specific data gathering and analysis activities required and identification of who will be responsible for carrying out each activity.

- b. An itemized budget which identifies the reasonable costs for carrying out the studies to the satisfaction of DFG, funding sources, and the necessary funding commitments.
- c. A time schedule for funding and completion of all study activities identified in item "a" above, including submittal of a final study report to the board by no later than April 1, 1994.

These requirements may be modified, or the submittal date of the plan may be revised, if necessary to coordinate this activity with an overall Board review of the basic provisions of the Yuba permits.

- 14. Pursuant to California Water Code Section 100 and 275 and the common law public trust doctrine, all rights and privileges under this temporary change order, including method of diversion, method of use, and quantity of water diverted, are subject to the continuing authority of the Board in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use or unreasonable method of diversion of said water.

The continuing authority of the Board also may be exercised by imposing specific requirements over and above those

contained in this change order with a view to minimize waste of water and to meet reasonable water requirements without unreasonable draft on the source.

15. The Board reserves jurisdiction to supervise the transfer, exchange and use of water under this order, and to coordinate or modify terms and conditions, at the discretion of the Board, for the protection of vested rights, fish, wildlife, instream beneficial uses and the public interest as future conditions may warrant.

CERTIFICATION

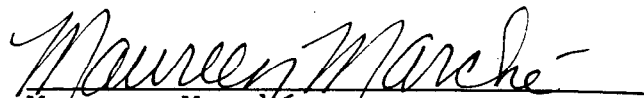
The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on July 20, 1989.

AYE: W. Don Maughan
 Darlene E. Ruiz
 Edwin H. Finster
 Eliseo M. Samaniego
 Danny Walsh

NO: None

ABSENT: None

ABSTAIN: None


Maureen Marché
Administrative Assistant to
The Board

