

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD**ORDER WR 2004-**

In the Matter of a
Petition for Long-Term Transfer involving a
Change in the Place and Purpose of Use of Licenses
2685, 6047, and 11395 (Applications 1224, 10572, and 16186) of Merced Irrigation
District and Licenses 5417 and 11058 (Applications 1233 and 14127) of
Modesto and Turlock Irrigation Districts

SOURCE: Sacramento-San Joaquin Delta Estuary

COUNTY: San Joaquin

ORDER APPROVING PETITION FOR LONG-TERM TRANSFER

BY THE BOARD:

1.0 INTRODUCTION

This order approves a joint petition for long-term transfer involving a change in place of use and purpose of use of water, filed by Merced Irrigation District (Merced) and Modesto and Turlock Irrigation Districts (MID/TID) (collectively referred to herein as “petitioners”) pursuant to Water Code sections 1707 and 1735, et seq. The changes allow a transfer of up to 47,000 acre-feet of water per year (afa) under Merced’s licenses 2685, 6047, and 11395 (Applications 1224, 10572, and 16186) and MID/TID’s licenses 5417 and 11058 (Applications 1233 and 14127). The purpose of the transfer is to conduct the Vernalis Adaptive Management Plan (VAMP) experiments. The State Water Resources Control Board (SWRCB) approved a similar petition in revised SWRCB Decision 1641 (D-1641); the water subject to this order is in addition to the water transferred under D-1641.

This order is the result of an adjudicative hearing conducted by the SWRCB on April 23, 2003. The purpose of the hearing was for the SWRCB to receive evidence that will

enable it to make a decision regarding the issues raised by the unresolved protests filed against the transfer. The SWRCB originally issued the notice of hearing on November 7, 2002, with the hearing to commence on January 28, 2003. The hearing was postponed at the request of protestants to the petition, with the concurrence of the petitioners and the other parties. This order is based on the record of the hearing. The SWRCB has considered all of the evidence and arguments in the hearing record. Because this is an adjudicative proceeding, it is governed by the regulations at title 23, California Code of Regulations, section 648, et seq., and the statutes specified therein.

2.0 BACKGROUND

The purpose of the water transfer considered herein is to provide supplemental water for an April/May pulse flow at Vernalis on the San Joaquin River that is being conducted through May 2011 under the San Joaquin River Agreement (SJRA). The pulse flow is a variable in a 12-year experiment known as the VAMP, or Vernalis Adaptive Management Program. The SJRA is a settlement agreement among water right holders and other interested parties to conduct the VAMP experiment and to provide flows in the San Joaquin River at Vernalis for the 12-year experimental program.

The flows provided under the SJRA are a substitute for meeting the Vernalis flow objectives specified in the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (1995 Bay-Delta Plan) adopted by the SWRCB. In D-1641, among other things, the SWRCB approved changes in the water rights of certain water right holders who agreed in the SJRA to provide flows at Vernalis for variations of the April/May pulse flow specified in the 1995 Bay-Delta Plan.

The VAMP experiment is designed to assess the effect of export pumping at various specific river flows on salmon smolt survival through the Delta. The SJRA and the VAMP specify various flow levels at Vernalis and export limits at the State Water Project (SWP) and Central Valley Project (CVP) pumps based on existing flows in the San Joaquin River during the 31-day pulse flow period that is conducted in April and May. Under the SJRA, certain water right holders agree to provide flows up to a total limit of

110,000 acre-feet per year (afa) for 12 years, starting in 1999. In D-1641, the SWRCB authorized changes in place and purpose of use that were necessary in order for those water right holders to provide these flows under their permits and licenses for the term of the agreement. The authorization in D-1641 will expire no later than December 31, 2011 upon termination of the SJRA. After the SJRA terminates, the USBR will be responsible for meeting the Vernalis flow objectives.

Section 5.6 of the SJRA defines certain years as “double-step” years (projected to occur about one year in ten) in which the SJRGA members will provide water in excess of the 110,000 afa authorized by D-1641 to achieve the VAMP. Double step years are also defined in D-1641 (pages 161-162). The maximum amount of supplemental water (in excess of 110,000 afa) required by the SJRA for fish and wildlife use in the river during double-step years is estimated based on computer modeling studies to be 47,000 afa. Under the SJRA, Merced or MID/TID will provide the additional 47,000 afa of water via the Tuolumne and Merced rivers. The purpose of this order is to decide whether to approve the requested changes in place and purpose of use for this supplemental water so that the SJRGA members can dedicate up to 47,000 afa more to the pulse flow during any “double-step” year that occurs during the conduct of the 12-year VAMP experiment.

2.1 Physical Setting

The Merced and Tuolumne rivers are tributaries of the San Joaquin River. The San Joaquin River flows from south to north into the Sacramento-San Joaquin Delta (Delta) near Stockton. The flows in the San Joaquin River are diminished by upstream diversions of water, potentially leaving less than is needed to maintain fish and wildlife uses in the San Joaquin River and in the Delta. Adequate flows are needed in the Delta at certain times to ensure that fish can travel between the San Joaquin River and the Pacific Ocean by way of the Delta.

2.2 Proposed Changes to Merced I.D.’s and MID/TID’s Licenses

Merced and MID/TID hold water rights to divert water to storage and for direct diversion from the Merced River at Lake McClure and from the Tuolumne River at New Don

Pedro Reservoir, respectively. Merced and MID/TID filed a joint petition for a long-term transfer of water on March 19, 2001, pursuant to Water Code sections 1707 and 1735, et seq. The petitioners seek approval of a long-term transfer of water, involving a change in place of use and purpose of use of water, under Merced's licenses 2685, 6047, and 11395 (Applications 1224, 10572, and 16186) and MID/TID's licenses 5417 and 11058 (Applications 1233 and 14127). The petitioners propose to transfer up to 47,000 afa. The petitioners seek to add a purpose of use to each of the licenses for fish and wildlife preservation, and to add places of use in the Merced River below Lake McClure for Merced's licenses, in the Tuolumne River below New Don Pedro Reservoir for MID/TID's licenses, and the San Joaquin River from the confluence of either the Merced or the Tuolumne Rivers to Vernalis. The term of the changes would be through May 2011.

3.0 ISSUES FOR HEARING AND PARTIES' POSITIONS ON THE ISSUES

3.1 Protests to the Change Petition

The SWRCB received protests from the United States Bureau of Reclamation (USBR), Stockton East Water District (SEWD), South Delta Water Agency (SDWA) and Central Delta Water Agency (CDWA). The USBR and SEWD withdrew their protests following an agreement with the petitioners to include the refill condition for New Melones Reservoir specified in D-1641 (condition 3, page 169) in the licenses for Merced and MID/TID. As a result of their negotiations, the USBR and the petitioners also requested that the condition in D-1641 requiring coordination of water release planning (condition 6, page 168) and the condition requiring the petitioners to submit an operations report for the SJRA to the SWRCB (condition 7 on page 168) be included in the licenses.

Consistent with D-1641, the USBR and the petitioners request that these conditions remain in effect during the term of the transfer. Protests by SDWA and CDWA, based on injury to prior water rights and environmental grounds, were not resolved.

Despite having agreed to a resolution of its protest, SEWD submitted a notice of intention to participate in the hearing, and actively participated.¹ SEWD presented evidence and participated in cross-examination of witnesses. SEWD's evidence and cross-examination were directed to its concern that the refill condition in D-1641 that it had agreed to accept as resolution of its protest might not adequately protect SEWD's water supply against the effects of the proposed transfer.

3.2 Key Hearing Issues and Briefing Issues

The hearing notice contains the following Key Issues (in bold type) and the following explanatory questions regarding the Key Issues:

1. **Would the petitioned changes unreasonably affect any legal user of water or result in substantial injury to any legal user of water?**

(Wat. Code, §§ 1707(b)(2) and 1736.) The petitioners are requested to provide evidence as to why the proposed changes will have neither an unreasonable effect on any legal user of water nor a substantial injury to any legal user of water. The protestants claiming injury to existing water rights should present evidence demonstrating the specific injury to the existing water right that would result from approval of the changes proposed by the petition. In addition, the protestants claiming injury should present evidence that describes the basis of their claims to a water right, the date the water use began, the quantity of water use during each period of the year that might be affected by the proposed transfer, the purpose of use, and the specific place of use.

2. **Would the petitioned changes unreasonably affect fish, wildlife, or other instream beneficial uses of water?**

(Wat. Code, § 1736.) The petitioners are requested to provide evidence as to why the proposed changes will have no unreasonable effect on fish, wildlife, or other instream beneficial uses of water. The protestants claiming there will be adverse

¹ The City of Stockton and the USBR also submitted notices of intention to appear, to present policy statements and to cross-examine witnesses or present rebuttal, but they did not actively participate.

impacts to the environment or to public trust values must present evidence supporting these claims.

3. **Are the purposes of the petitioned changes to preserve or enhance wetlands habitat, fish and wildlife resources, or recreation in, or on, the water?**

(Wat. Code, § 1707(a).) If so, will these purposes be carried out if the petitioned changes are approved by the SWRCB?

4. **If the SWRCB approves the petitioned changes, what terms and conditions will best develop, conserve and utilize, in the public interest, the water subject to the change?**

(Wat. Code, § 1707(b).) Factors that the SWRCB should consider in determining the public interest are described in Water Code section 1256.

5. **Would the petitioned changes increase the amount of water each of the petitioners is entitled to use?**

(Wat.Code, § 1707 (b)(1).) The petitioners are responsible for showing that there will be no increase in the amount of water each of them are entitled to use.

6. **Will the petitioned changes otherwise meet the requirements of Division 2 of the Water Code?**

(Wat. Code, § 1707(b)(3).)

After the hearing, the hearing officer asked the parties to address the following questions in their closing briefs:

1. During April and May of “double-step” years, what impacts, if any, may occur to legal users of water due to releases conducted pursuant to the petitions?
2. What if any impacts may occur to legal users of water during other months of the year due to releases made during April and May pursuant to the petitions?

3. What if any water quality impacts may result from releases being made pursuant to the petitions during double-step years?
4. What if any conditions should be placed on the proposed transfer to avoid impacts to other legal users of water?
5. Under what terms and conditions should the SWRCB approve this transfer? In particular, should refill conditions similar to the conditions on the approval in Decision 1641 of the SJRGA transfers be placed on this transfer? If so, should any modifications be made to these conditions?
6. What impacts, if any, will the approval of the proposed transfer have on the operation of the State Water Project and/or Central Valley Project? Will the proposed transfer affect export pumping by the Projects and if so, how? What impacts to other water users or to the environment, if any, will result from any changes that may occur in export pumping?

4.0 COMPLIANCE WITH WATER CODE REQUIREMENTS

4.1 Compliance With Water Code Sections 1392 And 1629

CDWA and SDWA argue that Water Code sections 1392 and 1629 prohibit the petitioners from transferring their appropriated water to instream use for a profit. These two sections are essentially identical, except that section 1392 applies to water right permits and section 1629 applies to water right licenses. The petitioners' rights subject to the proposed transfer are based on licenses, to which section 1629 applies. Section 1629 provides:

Every licensee, if he accepts a license, does so under the conditions precedent that no value whatsoever in excess of the actual amount paid to the State therefor shall at any time be assigned to or claimed for any license granted or issued under the provisions of this division, or for any rights granted or acquired under the provisions of this division, in respect to the regulation by any competent public authority of the services or the price of the services to be rendered by any licensee or by the holder of any

rights granted or acquired under the provisions of this division or in respect to any valuation for purposes of sale to or purchase, whether through condemnation proceedings or otherwise, by the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State, of the rights and property of any licensee, or the possessor of any rights granted, issued, or acquired under the provisions of this division. (Wat. Code, § 1629, emphasis added.)

The trial court in the Bay-Delta Programmatic EIR Cases, Judicial Council Coordination Proceeding No. JC04152, in litigation challenging the Record of Decision and environmental impact report adopted by a coalition of state and federal agencies in 2000, held that this section limits the valuation of water rights only in the context of ratemaking approvals by a public authority or in the context of the involuntary sale to or purchase by a public entity of the water right. The SWRCB agrees with the trial court's analysis.

The CDWA and SDWA interpretation also would run contrary to the intent of the legislature to encourage and facilitate water marketing through transfers. As currently used, water marketing is a valuable tool in the efforts to balance water supplies and water demands in California. In Order WR 2000-16 DWR, the Chief of the Division of Water Rights of the SWRCB interpreted section 1392 and held that, in light of the legislative intent expressed in Water Code sections 109, 475, and 480, to encourage voluntary transfers of water, section 1392 would not be interpreted as meaning that the water right holder could not voluntarily transfer water². The SWRCB agrees with this interpretation.

The SWRCB concludes that section 1629, as well as section 1392, applies only to circumstances in which a regulatory agency is setting the water right holder's rates or the water right holder is selling the water right to the state or a local public entity. It does not apply to voluntary water transfers that do not involve the sale or condemnation of a water right. It also does not apply to sales of water rights to private entities or to the United States, since they are not the state or a political subdivision of the state. This change

² In addition to the sections cited in Order WR 2000-16 DWR, Water Code sections 382-387, 1011, 1011.5, 1013 et seq., 1725, et seq., 1735, et seq., and 1740 all encourage, facilitate, or regulate the voluntary transfer of water or water rights.

involves the transfer of water only, not a transfer of water rights. Further, the petitioners are not turning the water over to any other public entity. Even if the transfer could be characterized as a sale to a public entity, that entity would be the United States, which is funding the transfer. Therefore, section 1629 does not apply to this transfer.

4.2 Standards for Approval of Change Petition

SDWA argues that the proposed transfer does not meet the standards for approval of the change petition. As SDWA points out, the petition was filed under Water Code sections 1707 and 1735, et seq. Under section 1707, the SWRCB may approve a change petition for the purpose of preserving or enhancing fish and wildlife uses of the water if the change: (1) will not increase the amount of water the person is entitled to use; (2) will not unreasonably affect any legal user of water; (3) otherwise meets the requirements of Division 2 of the Water Code. Under section 1736, the SWRCB may approve a petition for a long-term transfer where the change will not result in substantial injury to any legal user of water and will not unreasonably affect fish, wildlife, or other instream beneficial uses. The compliance of the proposed transfer with each of these standards is discussed in sections 4.3 through 4.6 below.

4.3 Effect on the Amounts of Water the Petitioners are Entitled to Use

The SDWA and the CDWA allege that the transfer for the spring pulse flow produces storage space in the upstream reservoirs, which can be refilled later in the year. SDWA and CDWA argue that the net effect of this operation is that each district may capture and use more water than they are entitled to use in the absence of the transfer. Accordingly, the issue here is whether the change will increase the amount of water that the petitioners are entitled to use. (Wat. Code, § 1707.)

This order does not authorize an increase in water appropriation, including use by the petitioners. The water must come from available supplies within the petitioners' established water rights, and the petitioner's total use, including the transferred water, may not exceed the amount allowed in their water rights. Merced and MID/TID hold water right Licenses 2685, 6047, and 11395 (Applications 1224, 10572, and 16186) and

Licenses 5417 and 11058 (Applications 1233 and 14127), respectively. The licenses authorize the diversion of water to storage and the direct diversion of water from the Merced River at Lake McClure and from the Tuolumne River at New Don Pedro Reservoir. The following table summarizes the water right licenses.

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Summary of Appropriative Water Rights Licenses

Licensee License I.D.	Licensed Rate of Diversion and Storage		Licensed Diversion Season		Licensed Purposes of Use	License Withdrawal Limitations
	Direct Diversion (cfs)	Storage (af)	Direct Diversion	Storage		
Merced Irrigation District L-2685 (A- 1224) L-6047 (A- 10572) L-11395 (A- 11395)	1,500 257 --	266,400 -- 605,000	3/1–10/31 and 1/1- 12/31 for domestic uses 3/30–8/1	10/1-7/1 -- 10/1–7/1	Irrigation, Domestic, Recreational, Fish and Wildlife Protection and Enhancement, Fish Culture	¹ The maximum withdrawal under L-2684, L-2685 and L- 11395 shall not exceed 516,110 afa.
Modesto Irrigation District and Turlock Irrigation District L-5417 (A- 1233) L-11058 (A- 11058)	-- --	325,000 1,046,800	-- --	10/1-8/1 11/1-7/31	Irrigation, Recreational	² The maximum withdrawal under L-11058, P-9319, L-5420 and L-5417 shall not exceed 951,100 afa
¹ L-2684 (A-1222) authorizes MID to directly diversion water from the Merced River at a rate of 362 cfs (from 1/31-10/31) and to store (Lake McClure) 272,800 afa (from 10/1-7/1) for power purposes.						
² P-9319 (A-14126) and L-5420 (A-1233) authorize MID and TID to store (New Don Pedro) 1,046,800 afa and 325,000 afa for power and recreational uses.						

Under Licenses 2645 and 11395, Merced is entitled to store more than 800,000 afa during the licensed diversion season of October 1 to July 1. Merced is also entitled to withdraw up to 516,110 afa of stored water under the licensed rights. Under Licenses 5417 and 11058, MID/TID are entitled to store more than 1.3 million afa each year. MID/TID are also entitled to withdraw up to 951,100 afa of stored water under the licensed rights.

Although CDWA and SDWA claim that approval of the change will allow Merced and MID/TID to use more water than that authorized under their licensed rights, the protestants did not present any testimony or exhibits which substantiate their claim that approval of the change will allow Merced and MID/TID to use more water than authorized in their licenses. Nevertheless, this Order is conditioned upon Merced and MID/TID not withdrawing more than the withdrawal quantities authorized under their licensed rights for beneficial uses during those certain years defined as “double-step” years (projected to occur about one year in ten), in which the SJRGA members will provide water in excess of the 110,000 afa authorized by D-1641 to achieve the VAMP.

Therefore, this Order requires that during “double-step” years, Merced and MID/TID, respectively, shall withdraw no more water from storage for all beneficial uses than the 516,110 afa and 951,100 afa they are entitled to use under their licensed rights. To the extent that water transferred under this change is withdrawn from storage, the withdrawn water shall be counted against the maximum withdrawal limitations specified under the licensed rights.

4.4 Injury to Other Legal Users of Water

The SWRCB cannot approve the proposed changes if it finds that the proposed changes will either unreasonably affect a legal user of water or will substantially injure a legal user of water. (See Wat. Code, §§ 1707(b)(2) and 1736, respectively.) CDWA and SDWA claim to represent legal users of water who could be injured. SEWD claims to be a legal user of water that could be injured. The petitioners argue that these parties have not adequately demonstrated that they are legal users of water. If the water users will not suffer injury due to the proposed changes, however, it is not necessary to determine whether they are “legal users of water” within the meaning of the Water Code. If they will be injured only at certain times, then this order need only determine whether there are legal users of water in CDWA and SDWA or SEWD who will be injured due to the petitioned change. Based on the following findings, the proposed changes, as conditioned in this order, will have no effect on the availability of water for the protestants.

4.4.1 Effects of Changes in Timing of Upstream Releases

Merced ID and MID/TID propose to release water from Lake McClure on the Merced River and New Don Pedro Reservoir on the Tuolumne River to provide water for the VAMP double-step during April and/or May. SDWA claims that without the double-step, these releases would be made during summer for power production and would then flow into the Delta, where SDWA's members could use the water for irrigation. It does not appear, however, that the water supply problems they predict would be likely to occur during the double-step years in which the 47 TAF would be transferred to instream use.

4.4.1.1 *Effect on July through September Flows*

Witnesses for SDWA testified that the release of 47 TAF during the April-May pulse flow would somewhat reduce the releases during July through September from petitioners' reservoirs for power production and flood control. SDWA argues that shifting the timing of power generation releases from summer to spring exacerbates existing water availability and water quality impacts to diverters of water in the Delta. (SDWA 5, pp. 4-5.) SDWA further argues that the modeling does not adequately address potential impacts to downstream diverters from a shift in timing of reservoir releases from summer to spring, and so it is not possible to determine specific impacts of the proposed change. SDWA's witnesses who farm in the southern Delta testified that they periodically experience reductions in water levels and water quality problems. Their opinion is that these problems will worsen during the summer due to make-up pumping to replace reductions in exports during the April-May pulse flow.

In most double-step years there will be no change in Merced River flows during the summer. Based on the testimony of the petitioners' witness, MID/TID's provision of water for the double-step will not result in a shift in releases from summer to spring. (R.T., p. 200.) Merced routinely meets only the instream flow requirements, but in some wetter years, the flows might be somewhat lower than they would be without the transfer. (R.T., p. 203.) Since Merced always meets the instream flow requirements, any reduction during these wetter years would be a reduction of surplus flows, not a reduction

below the usual flows. Also, contrary to SDWA's assertion, the change in the timing of downstream releases does not translate to a change in the amount of water MID/TID will release to the river during the July through September period due to reductions in power generation. Under without-change conditions, when MID/TID releases water for power generation above the minimum instream flow requirement from New Don Pedro Reservoir, it re-regulates the water into offstream reservoirs for re-release. Thus, there are no changes in river flows due to changes in power generation.

MID/TID does release water down the river above the minimum instream flow requirements to make required pre-flood control releases during January through April. (R.T., p. 199.) At times when hydrological conditions in the San Joaquin River Basin require pre-flood releases, however, water quality objectives at Vernalis always are being met. (R.T., p. 198-199.) Merced ID and MID/TID also meet the instream flows required by their Federal Energy Regulatory (FERC) licenses. Consequently, any change in timing of upstream releases due to the proposed change would not impact downstream diverters.

4.4.1.2 Effect of Differences in Modeling Assumptions

Petitioners' modeling analysis of the proposed change assumes that the United States Bureau of Reclamation (USBR) is operating New Melones Reservoir in accordance with the New Melones Interim Plan of Operations (IOP). (R.T., p. 47.) However, USBR may deviate from the IOP in order to meet SWRCB water quality requirements at Vernalis on the San Joaquin River. (SEWD 7.) Any difference between the modeled operating assumptions for New Melones operations and actual operations to meet water quality objectives will not result in additional impacts to Delta diverters at the time releases are made, because the USBR is required to meet the salinity and flow objectives at Vernalis, and it is reasonable to assume the USBR will comply with this requirement.

SDWA also argues that the modeling inaccurately represents potential impacts to contractors because modeling for the original VAMP transfer of 110,000 acre-feet assumes that 15,000 acre-feet of Oakdale Irrigation District (OID) Stanislaus River

allocations would remain in storage and would be reallocated among contractors. The modeling of the current proposal differs, however, in that it assumes that the 15,000 acre-feet is allocated for fisheries purposes. Based on the testimony of SJRGA's witness, any difference in the amount of deliveries to contractors due to the change in assumptions regarding the use of the 15,000 acre-feet would be minimal because allocation changes from New Melones react sluggishly to increases in water supplies. (R.T., p. 53.)

4.4.1.3 *Delta Diverters Have No Legal Claim on Water Stored in Upstream Reservoirs*

Even if Delta diverters experience reduced water quality or lowered water elevations due to a change in the timing of discretionary reservoir releases from spring to summer as compared to conditions without the change, those diverters do not have a claim on the water held in upstream reservoirs that was stored in another season. SDWA and CDWA both claim to represent riparian diverters as well as appropriative diverters with water rights senior to Merced ID and MID/TID. Riparian and appropriative diverters with rights senior to Merced ID and MID/TID have a senior right to water that would have naturally occurred in the stream system at the time the water is diverted. However, water stored in another season is not natural flow.

Riparian rights attach only to the natural flow of the stream (*Lux v. Haggin* (1884) 69 Cal. 255 [4P.919]; *Bloss v. Rahily* (1940) 16 Cal.2s 70 {104 P.2d 1049}.) and do not attach to water that has been stored upstream during an earlier period. (*Lindblom v. Round Valley Water Co.* (1918) 178 Cal. 450 [173 P. 994, 997].) Because a riparian right holder's water right cannot exceed the natural flow, riparian right holders cannot be harmed if they are deprived of water that exceeds the natural flow. Merced ID and MID/TID will maintain minimum instream flows in accordance with their FERC licenses. Neither SDWA nor CDWA presented evidence to demonstrate that the proposed change would reduce summertime stream flows below flows that would naturally exist absent the upstream reservoirs. Consequently, no evidence in the record demonstrates that the proposed change will reduce the amount of water that is naturally available to riparian diverters.

Appropriative right holders can divert and use any unappropriated water that is flowing in the stream (including abandoned water), subject to their compliance with any applicable permit or license conditions. Downstream senior appropriators can require that junior upstream appropriators bypass or release natural flow needed to satisfy the senior appropriative rights. However, reservoir owners are not required to release water appropriated during another season to serve senior appropriators. (*Lindblom*, supra.) In addition, an appropriator is not required to continue to abandon stored water it previously abandoned in the past to maintain an artificial flow. (*Stevens v. Oakdale Irrigation District* (1939) 13 Cal.2d343 [90 P.2d 58].) All of the water the petitioners propose to release pursuant to the petitions will come from reservoir storage. Consequently, SDWA, CDWA and other diverters will not be impacted by any changes in the timing of discretionary reservoir releases.

4.4.2 Effect of Refill of Reservoir Releases on New Melones Storage

SEWD argues that the proposed change may impact its ability to receive contractual water allocations from the New Melones Project. SEWD's contract allocations are based on the IOP. Under the IOP, the USBR makes allocations based on the February end-of-month storage plus March through September forecasted inflow to New Melones Reservoir. (R.T., p 172.) USBR may deviate from the IOP in order to meet water quality objectives at Vernalis. (SEWD 7.) Because water allocations to USBR contractors are based on carryover storage, a reduction in carryover storage to meet water quality objectives can reduce the amount of water allocated to SEWD. Based on modeling analyses, refill of water releases pursuant to the proposed change may affect Stanislaus River operations in 2 out of the 71 years modeled (or approximately 2.8 percent of years). (SJRG 1C, p. [4-18]-[4-19].)

In effect, SEWD is seeking to protect the water rights of the USBR, from which it purchases water. Water Code sections 1707 and 1736, under which this long-term change is approved, respectively require that the change will not unreasonably affect any legal user of water and will not result in substantial injury to any legal user of water. In

other words, these sections subordinate a change in a water right to all other water rights that could be impacted by the change, even if the other water rights are junior to the right being changed. Further, the USBR has not agreed to provide water to make up for any instream flows that are missing from the San Joaquin River due to increased storage operations by the petitioners late in the diversion season to replenish supplies contributed to the April/May pulse flow under the SJRA. If MID/TID or Merced refills a reservoir to replace water released pursuant to the SJRA, and this refill operation causes the USBR to bypass or release³ water from New Melones to meet salinity or flow objectives at Vernalis, then the right of the USBR to appropriate the water is impaired, and it has less water to deliver to its water supply contractors.

To protect USBR's water rights (and consequently USBR's contract allocations), this order is conditioned to prohibit Merced ID and MID/TID from refilling their reservoirs after a release under the SJRA during periods when USBR is bypassing inflow or making releases from storage at New Melones in order to meet salinity and/or fish and wildlife flow objectives at Vernalis, when either of the objectives is not being met, or when Standard Permit Term 93 is in effect. The refill condition in this order differs from the condition in D-1641, in that it prohibits refill not only when the USBR is bypassing or releasing water from New Melones to meet the salinity objectives, but also when the USBR is bypassing or releasing water from New Melones to meet the flow objectives.

There is no evidence that Merced ID and MID/TID currently coordinate their refill operations with USBR. This order requires Merced ID and MID/TID to coordinate refill of water released pursuant to this change with USBR to ensure that refill does not occur when the USBR is bypassing or releasing water to meet flow or salinity objectives at Vernalis. If the petitioners meet this condition, neither USBR nor SEWD should be affected by the proposed change. The purpose of this change is to avoid shifting the water cost of the flow releases under the SJRA to the USBR's New Melones Project.

³ A "release" of water as it pertains to the New Melones Project in D-1641 includes both a release from storage and a release effectuated by bypassing water that otherwise would be stored. To avoid confusion, this order specifies both bypass and release, even though doing so may be redundant.

Because the USBR will pay the petitioners to release water for the double-step flows, the USBR has another means of protecting its water rights. If USBR believes that the double-step flows will impair its water supply under its New Melones water rights, the USBR could take action under its agreement with the petitioners to protect its rights.

4.4.3 Protection of Salinity in the Southern and Central Delta

CDWA argues that increasing river flows for fish in the spring will reduce summer flows and deplete reservoir storage causing water quality impacts downstream due to decreased surface flows and associated return flows and increased groundwater extractions and associated river losses. (CDWA 2, p. 3.) CDWA further argues that degraded summertime water quality will impact Delta agricultural water diverters' ability to maintain a proper salt balance in crop root zones in areas where water tables are high and salt leaching is a concern. (CDWA 2, p. 3.) SDWA makes similar arguments.

CDWA argues that because the modeling does not examine the potential impacts of a series of dry years, it is inadequate. CDWA argues that a series of dry years could result in more extreme depletions in carry-over storage in the reservoirs than that modeled. (CDWA 2, p. 8.) The petitioners' witness testified that modeling was conducted for the 71-year period of record in the same sequence of water year types as what naturally occurred. (R.T., p. 79.) No basis exists to require the petitioners to model a hypothetical series of dry years when no such conditions existed within the extensive modeled period of record. In addition, it seems highly unlikely that a consecutive series of 7 or 8 dry or critically dry years would occur during the 7 remaining years of the VAMP experiment. The SWRCB finds that the Petitioners' modeling analyses are adequate to determine the potential impacts of the proposed change. Further, CDWA's argument is inapposite to the proposed changes. The double-step flows will be released only during wetter years, not during a series of dry years.

The modeling indicates that the proposed change could potentially affect the ability of the USBR to meet the water quality objectives at Vernalis in two historical instances. In one case, a modeled reduction in releases to the Tuolumne River during April of 1985 for

recovery of double-step releases made during May of 1984 resulted in modeled increased releases from New Melones to meet the water quality objectives at Vernalis. (SJRG 1C, p. [4-18].) In another instance, modeling indicates that Stanislaus River operations would be affected by the refill of Lake McClure during August of 1973 due to projected releases made during April of 1971 for the double-step. The modeling indicates that increased releases from New Melones during 1973 would result in a minor reduction in spill to the Stanislaus River in March of 1975. (SJRG 1C, p. [4-18]-[4-19].)

Pursuant to its permits, USBR is required to meet the water quality objectives at Vernalis under all circumstances. (D-1641, p. 161.) Modeling indicates that adequate water exists in New Melones Reservoir during the two modeled instances in which the proposed change would affect Stanislaus River operations. (SJRG 1C, p. [4-18]-[4-19].)

Consequently, based on the available evidence, there will be no violations of the Vernalis salinity objective due to the proposed change. As discussed in section 4.4.2 above, this order is conditioned to prohibit Merced ID and MID/TID from refilling releases made pursuant to this petition whenever USBR is releasing water or bypassing water from New Melones to meet the Vernalis salinity objective or the flow objective.

4.4.4 Effects of Releases on Export Pumping Rates

SDWA and CDWA both argue that the proposed change could result in impacts to Delta diverters from make-up pumping by the Department of Water Resources (DWR) or USBR later in the year. Make-up pumping occurs at times when the DWR and the USBR are recovering water that they previously forewent in order to benefit fish and wildlife.

D-1641 allows the projects to divert up to 100% of the 3-day running average of San Joaquin River flow at Vernalis during the San Joaquin River pulse flow period. (D-1641, p. 184, 186.) Consequently, increased flows on the San Joaquin River may increase the amount of water the projects are authorized to divert from the Delta. However, the VAMP experiment prescribes export limits during the 31-day pulse flow period that may limit diversions to less than 100% of the San Joaquin River flow at that time. Any

reduction in exports during this period is the operational decision of the DWR or the USBR, or may be required by another agency to protect endangered species or satisfy other concerns. (See D-1641, p. 48.) Approval of the proposed change would not, therefore, be the direct cause of DWR or USBR reducing its pumping in April and May and then pumping additional water from the Delta at a later time.

To the extent that the DWR increases or decreases its export pumping at other times, the DWR often has enough unused physical and legal pumping capacity. Accordingly, the DWR generally does not need to use make-up pumping; it pumps as needed except during periods when there are legal constraints. The USBR, on the other hand, has limited capacity at its Tracy pumping plant, and consequently must use DWR's facilities to increase its export pumping and make up for reductions. If the USBR uses DWR's pumping plant, it must meet the requirements on use of the joint point of diversion in D-1641. (See D-1641, pp. 150-153.) These requirements include protections for diverters of water in the southern Delta and protections for fish and wildlife. With the terms and conditions to protect the diverters and to protect fish and wildlife from impacts due to the use of the joint point of diversion, any impacts of the USBR's make-up pumping will be mitigated and will be insignificant.

4.4.5 Potential for Increased Groundwater Pumping and Consequences to Downstream Water Users

CDWA argues that the proposed change could result in additional groundwater pumping due to a reduction in surface water supplies. CDWA references a finding in D-1641 regarding potential groundwater impacts related to transfers from Merced ID to conduct the original 110,000 acre-foot VAMP transfer. Unlike the original VAMP transfer, however, the proposed change involving 47,000 acre-feet is not expected to result in potential reductions in surface water supplies within the districts or groundwater substitution⁴. Based on the modeling of the proposed changes, releases of water pursuant to the proposed changes would only take place in years where excess carry-over storage

⁴The SWRCB found in D-1641 that in severe droughts the original VAMP transfer of 110,000 acre-feet could result in additional overdraft in the Merced groundwater basin that could result in reduced stream flows for use by downstream diverters. (D-1641, p. 37-39.)

is present. In these years, there should be no reduction in surface water deliveries to customers and, as a result, no increase in groundwater pumping related to the proposed change, as well as no other potential groundwater impacts. (SJRG 1C, p. [5-6].)

In addition, because there will be no change in the diversion or delivery of water to customers within the affected groundwater basins, there should be no change in the timing or occurrence of return flows. If water is released pursuant to the proposed change, there will be an increase in the river stage downstream that may result in groundwater recharge in areas where the river stage is higher than the adjacent groundwater levels. In the absence of adverse impacts to groundwater extraction due to the proposed changes, no need exists for conditions to mitigate for the impacts.

4.5 Effects On Fish, Wildlife, Or Other Instream Beneficial Uses Of Water

The petitioners' purpose in petitioning for the changes is to provide water for fishery flows in addition to the flows approved in D-1641 pursuant to the petitioners' earlier long-term change petition. The data collected as a result of the flows will contribute to the VAMP experiment.

The VAMP experiment is intended to provide hydrological conditions in the San Joaquin River that promote the outmigration of juvenile fall-run Chinook salmon during April and May. The VAMP experiment will provide information regarding the relative effects of flow, exports, and the operation of the head of Old River barrier on survival of the fishery. (R.T., p.36.) Of particular value, the VAMP experiment will contribute direct information on the relative contribution of various factors to smolt survival. Currently, scientists estimate the survival rates of smolts by correlation with the rate of return of adult Chinook salmon to the San Joaquin River basin, but they do not have direct information. Information concerning the relationship between the various experimental factors will assist in future decisions concerning the appropriate flow and export rates and use of fish barriers for protection of and recovery of fall-run Chinook salmon in the San Joaquin River basin. (SJRG 2B at pp. 1-2.)

As discussed above, petitioners filed their petition under Water Code sections 1707 and 1735, et seq. Under Water Code section 1707, subdivision (a)(1), a water right holder can petition the SWRCB under section 1707 for a change to authorize in-stream use of the water to preserve or enhance fish and wildlife resources. The proposed changes meet that purpose.

Under Water Code section 1735, et seq., the SWRCB can approve long-term changes in water rights if it finds that the proposed change will not unreasonably affect fish, wildlife, or other instream beneficial uses. CDWA and SDWA argue that the proposed change could affect fish, wildlife and other instream beneficial uses due to the following factors: (1) changes in the amount and timing of instream flows in the Tuolumne, Merced and San Joaquin rivers, (2) changes in storage levels at New Don Pedro Reservoir, Lake McClure and New Melones Reservoir, and (3) increased exports by USBR at other times of year to recover exports foregone during the VAMP flow period.

4.5.1 Effects on Fish and Wildlife in the Tuolumne, Merced and San Joaquin Rivers Due to Impacts on Flow

The SJRGA conducted modeling analyses to determine the expected average monthly change in instream flows on the Merced, Tuolumne and San Joaquin rivers. The modeling analysis assumes that water is released pursuant to the proposed change during either April or May of double-step years and that water is provided from either the Merced or the Tuolumne rivers. The modeling conservatively represents the maximum expected changes in flows during subsequent years. Based on the *Final Supplemental Environmental Impact Statement/Environmental Impact Report for Acquisition of Additional Water for Meeting the San Joaquin River Agreement Flow Objectives, 2001-2010* (Final SEIS/EIR), changes in flows during subsequent periods of less than 10% will not have a significant impact, while increases in flows of greater than 10% will have a beneficial impact on fisheries. Decreases in flows between 11 and 25% will have less than significant impacts and decreases in flows of more than 25% will have potentially significant impacts. (SJRGA 1C, p. [7-9].)

The proposed change usually would be implemented during high flow water year types. (SJRGA 1C, p. [7-14].) Based on the modeling, the effects of flow releases on instream flows during subsequent periods would include some average increases in flows exceeding 10%, but would not include any average decreases in flows exceeding 10%. Based on the modeling, the final SEIS/EIR finds that there will be no significant adverse impact on fish and wildlife due to changes in flows caused by the proposed changes. The final SEIS/EIR constitutes substantial evidence of the absence of unreasonable effects to fish, wildlife, or other instream beneficial uses. No parties presented substantial evidence that there will be significant adverse impacts associated with a change in flows on fish, wildlife and other beneficial uses within the Merced, Tuolumne, and San Joaquin rivers. Consequently, the SWRCB finds that the proposed change will not have any significant adverse impacts on fish and wildlife due to changes in flow on the Merced, Tuolumne or San Joaquin rivers.

4.5.2 Effects on Fish and Wildlife Due to Reduced Storage in New Don Pedro Reservoir, Lake McClure and New Melones Reservoir

CDWA argues that the proposed change could affect the future supply of water available to meet fishery flows required by D-1641 by reducing reservoir storage. CDWA also argues that modeling conducted for the proposed change is inadequate because it assumes that the fish and wildlife flow objective will not be met in all instances. CDWA claims that reduced stream flow resulting from the proposed change would aggravate non-compliance with D-1641 objectives. The petitioners' witness testified that the modeling assumed that the requirements would be met. (R.T., p. 72.) The petitioners' witness also testified that the modeling reflects the IOP for New Melones Reservoir, which does not provide for always meeting the fish and wildlife flow objectives. (R.T., pp. 80-82.) The petitioners' witness further testified that if the flow objective were not being met, then any decrease in flow would aggravate the violation. (R.T., p. 78.)

It is unlikely that the proposed change will have any significant adverse impact on USBR's ability to meet the fish and wildlife flow requirement due to a reduction in carryover storage. As discussed in 4.5.1 above, any decreases in San Joaquin River flows

due to the proposed changes will be negligible, and the proposed changes could result in increased flows instead of decreases, depending on the circumstances.

Additionally, there is little potential for impacts due to reductions in flow and carryover storage because double-step flows will be infrequent if they occur (10% of years) and the proposed transfer will either occur or not occur within the next seven years. Assuming the proposed transfer occurs, USBR will be responsible for meeting the fish and wildlife flow objective, regardless of the allocations suggested in the IOP. Further, USBR has the option to meet the fish and wildlife flow objective from a source other than New Melones. To ensure that USBR can meet the fish and wildlife flow objective, this order is conditioned to protect USBR's water rights. As discussed in section 4.4.2 above, this order also is conditioned to preclude Merced ID and MID/TID from refilling reservoir releases made pursuant to this change at times when USBR is bypassing inflow or making releases from storage in New Melones to meet the objectives at Vernalis or if the objectives are not being met. Merced ID and MID/TID are required to coordinate with the USBR prior to and during refill operations to ensure that refill does not occur while the USBR is bypassing inflow or making storage releases to meet the Vernalis objectives or if the objectives at Vernalis are not being met.

4.5.3 Effects on Fish and Wildlife Due to Make-up Pumping by USBR or DWR

SDWA argues that the proposed changes could cause impacts to fish and wildlife during periods when the USBR or DWR is conducting make-up pumping to recover exports foregone during the double-step. (R.T., pp. 37-39.) As discussed in section 4.4.4 above, releases under the proposed changes could indirectly result in increases in the amount of water the USBR would export from the Delta at times other than during the April/May pulse flow.

The water provided pursuant to the VAMP double-step will help to preserve and enhance fishery resources in the Merced, Tuolumne and San Joaquin rivers. The proposed change will not significantly impact Chinook salmon and other fishery resources or their habitat within the rivers or downstream in the Delta. (SJRG 2, p. 1.) Further, the petitioners

took into account the potential effects of make-up pumping when analyzing the potential impacts of the proposed change. In effect, the release of water during April and May for the VAMP experiment effectuates a trade-off whereby DWR and USBR forego some pumping during the most sensitive biological periods of the VAMP pulse flow, and in return, DWR or USBR can pump more water during other times when there is less biological impact. (R.T., pp. 38-42.)

The SWRCB finds, pursuant to Water Code section 1735, that any make-up pumping that may result from the proposed change will not unreasonably affect fish, wildlife, or other instream beneficial uses.

4.5.4 Summary of Fish and Wildlife Effects

As conditioned in this order, approval of the proposed change will not unreasonably affect fish and wildlife resources. The VAMP double-step will benefit San Joaquin River fall-run Chinook salmon. Further, the data derived from the VAMP double-step flows will contribute valuable scientific information concerning the flow needs of the fishery that will help to determine appropriate flow requirements in future evaluations of the Vernalis flow objective.

4.6 Effects of the Proposed changes on the Public Interest

The VAMP experiment will provide valuable data on the relationship among San Joaquin River flows, export rates, and the survival of emigrating juvenile fall-run Chinook salmon smolts during the April-May period. Given the infrequent need for double-step water (10% of years), the general availability of water during years when the double-step would occur, and the potential value of the completed experiment to Delta fisheries, the proposed change is a reasonable use of water and is in the public interest. Further, there will be no significant impacts to downstream legal users of water or to water quality from the proposed change.

5.0 COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

Under the California Environmental Quality Act (CEQA), the SJRGA is the lead agency for preparation of environmental documentation for the proposed long-term transfer, while USBR is the lead agency pursuant to the National Environmental Policy Act (NEPA). The SWRCB is a responsible agency pursuant to CEQA for the proposed change (See Pub. Resources Code, § 21069.) The SJRGA and USBR prepared a Final SEIS/EIR for the proposed long-term transfer. (SJRGA 1C.) The SJRGA certified the document on April 27, 2001. The Final SEIS/EIR supplements the *Final Environmental Impact Statement and Environmental Impact Report for Meeting Flow Objectives for the San Joaquin River Agreement 1999-2010* that the SJRGA and USBR certified in 1999 for the original 110,000 acre-feet that the petitioners transferred to instream use to conduct the VAMP experiment. (SJRGA 1B.)

5.1 Significant Environmental Effects of this Order

CEQA requires public agencies to avoid or minimize significant adverse environmental effects if feasible. (Cal. Code Regs., tit. 14, § 15093.) In deciding whether and how to approve the project, the SWRCB must consider the environmental effects of the project as disclosed in the final environmental document. The SWRCB is responsible for mitigating or avoiding the significant adverse environmental effects of the parts of the project it decides to approve unless the SWRCB adopts a finding of overriding consideration for effects within its responsibility that it cannot avoid or mitigate. (Cal. Code Regs., tit. 14, § 15093.) The Final SEIS/EIR does not, however, identify any potentially significant environmental effects of the proposed long-term transfer. Consequently, the SWRCB is not responsible for mitigating or avoiding any environmental effects of the project pursuant to CEQA.

5.1.1 Surface Water Resources

The Final SEIS/EIR uses a modeling analysis to determine the potential impacts to surface water resources of providing up to an additional 47,000 acre-feet of flows during April and May from the Merced or the Tuolumne rivers to conduct the VAMP

experiment during double-step years. The modeling conservatively assumes that the entire supplemental flow is provided in either April or May from either the Merced or the Tuolumne rivers. (SJRG 1C, p. [4-8]-[4-9].)

The Final SEIS/EIR finds that there will be no significant adverse environmental impacts to surface water resources due to the proposed action. Because all of the 47,000 acre-feet of water proposed to be transferred will come from carryover storage, there will be no change to water deliveries within the Merced and Tuolumne rivers. (SJRG 1C, p. [4-12].) Any impacts to carry-over storage would be less than significant because any reduction in carry-over storage would usually be less than 10 percent and would be infrequent and short term in duration. (SJRG 1C, p. [4-12]-[4-15].)

There will be no significant impact to water quality. The probability of New Melones failing to meet water quality objectives due to a double-step release during the transfer period is less than significant. (SJRG 1C, pp. [4-18]-[4-20].)

5.1.2 Groundwater Resources

Merced ID and MID/TID will supply any water needed pursuant to the proposed change from storage. Because any reduction in carryover storage in the reservoirs would not result in reduced surface water supplies to customers within Merced ID's and MID/TID's service areas, groundwater diversions would not be increased. Consequently, there will be no significant adverse impacts on groundwater resources as a result of the proposed change, including impacts related to overdraft, subsidence, water quality and agricultural subsurface drainage. (SJRG 1C, pp. [5-7]-[5-8].)

5.1.3 Fish and Aquatic Resources

The Final SEIS/EIR analyzes the potential impacts of the project on (1) riparian habitats and unique Ecological Zones characterized by physical habitats and species populations within the affected areas, (2) factors affecting the distribution and abundance of aquatic resources in the San Joaquin River Basin and Bay-Delta Estuary, and (3) indicator species. The Final SEIS/EIR uses Chinook salmon, steelhead/rainbow trout, and splittail

as indicator species to determine the effect of changes in flows on the aquatic ecosystem. (SJRG 1C, p. [7-8]-[7-9].)

The Final SEIS/EIR finds that changes in flows in the Tuolumne, Merced, and San Joaquin rivers are not significant, and consequently, impacts to indicator species will be less than significant. To avoid potential impacts associated with stranding and dewatering of redds due to a quick reduction in flows following the release of water pursuant to this change, the Final SEIS/EIR states that the same ramping rates applied to the VAMP transfer of 110,000 acre-feet in D-1641 will be applied to this transfer. (SJRG 1C, p. [7-17].) This order requires the implementation of the ramping rates for the proposed changes. Double-step flows are expected to benefit fall-run Chinook salmon smolts emigrating out of the Merced River to the Delta, juvenile steelhead rearing in the Merced River, and splittail spawning in the Merced River. (SJRG 1C, p. [7-20].)

5.1.4 Terrestrial Biology

The Final SEIS/EIR finds that the proposed change is not likely to impact riparian vegetation, wildlife, or terrestrial special-status species. (SJRG 1C, p. [6-8]-[6-9].)

5.1.5 Land Uses

All of the water proposed for transfer will be provided by carryover storage in Lake McClure and New Don Pedro Reservoir. As a result, no significant impacts on population and population density, regional economy and employment, and agricultural land use from the proposed change are expected due to the proposed changes. (SJRG 1C, p. [8-6]-[8-9].)

5.1.6 Recreation

Water levels are not expected to change in the project area by more than 10% compared to conditions without the transfer. As a result, no significant impacts are expected on recreation associated with the Tuolumne, Merced and San Joaquin rivers, New Don Pedro Reservoir and Lake McClure, or conveyance facilities, wildlife refuges, or hunting clubs. (SJRG 1C, p. [10-13].)

5.1.7 Cultural Resources

Water levels, velocities, and periods of bank exposure are not expected to vary significantly from existing operations. Consequently, no significant impacts to cultural resources from exposure of buried archaeological remains are expected. (SJRG 1C, p. [9-8].)

5.1.8 Energy Production

The Final SEIS/EIR finds that any change in energy production is expected to be less than significant. (SJRG 1C, p. [11-2]-[11-8].)

5.1.9 Cumulative Effects

The Final SEIS/EIR includes a qualitative analysis of potential cumulative impacts. The following actions are considered in the cumulative impacts analysis for this transfer: SWRCB Bay-Delta Process, Central Valley Project Improvement Act (CVPIA) (especially section 3406(b)(2)), South Delta Improvement Plan (SDIP), CALFED Bay-Delta Program, New Melones Long-Term Plan of Operations, South San Joaquin Irrigation District (SSJID) South County Surface Water Supply Project, Oakdale Irrigation District (OID)/SSJID Water Transfer Project to Stockton East Water District (SEWD), Temporary Acquisition of Merced Irrigation District (Merced ID) Water for Wildlife Refuges for 2000-2001⁵, Exchange Contractors Temporary Water transfer Program, 2000-2004, and the Recirculation Feasibility Study Plan of Action. (SJRG 1C, p. [14-1].)

The Final SEIS/EIR finds that cumulative effects on water quality and fisheries in the Sacramento River from the projects discussed above would be beneficial due to increased flow and other fisheries protection measures. Recreation could be adversely impacted depending on operations of existing storage reservoirs but the Final SEIS/EIR does not find a significant cumulative adverse impact in this regard. Any new reservoir projects

⁵ This Order does not include any further discussion of this project since the time period of the transfer has passed.

associated with the projects considered in the cumulative impacts analysis would ultimately benefit recreation by providing more recreation opportunities. (SJRG 1C, p. [14-11].)

Within the San Joaquin River Region, the Final SEIS/EIR finds that the proposed transfer will contribute beneficially to water supply reliability because water to meet water quality plan objectives would be provided by willing sellers, rather than other water right holders. The proposed transfer will not reduce the ability of other agencies to purchase and transfer water (although other acquisitions for fish and wildlife could) because the water proposed to be transferred would not be available for transfer to other parties. The proposed change may contribute incrementally to ongoing impacts to cultural resources at reservoirs in the project area, but the proposed change's contribution is minor. (SJRG 1C, p. [14-11]-[14-13].)

The Final SEIS/EIR finds that cumulative impacts from the DWR and the USBR may have a significant impact on water supply within the service areas of the DWR and USBR. These potentially could be mitigated through water transfers and development of additional water storage facilities. Such impacts are unavoidable or are the responsibility of others. There may be a cumulative adverse impact on water quality within the CVP and SWP, but those impacts would not be significant. (SJRG 1C, p. [14-13].) The benefits to fish and wildlife in the Bay-Delta Estuary of implementing the proposed transfers override and outweigh any potentially significant cumulative impacts, and are in the greater public interest.

6.0 CONCLUSIONS

1. Water Code section 1629 does not prohibit the petitioners from transferring water under their licenses to instream use for compensation that amounts to a profit under the facts presented to the SWRCB.
2. The changes approved in this order, as conditioned, will not result in an increase in the amount of water the petitioners are entitled to use.

3. The changes approved in this order, as conditioned, will not unreasonably affect or substantially injure any legal user of water.
4. The changes approved in this order, as conditioned, will meet the requirements of Division 2 of the Water Code.
5. The changes approved in this order, as conditioned, will not unreasonably affect fish, wildlife, or other instream beneficial uses.
6. There are not significant adverse environmental effects of this project pursuant to CEQA, and consequently no mitigation is required pursuant to CEQA, although for other reasons this order imposes terms and conditions to prevent adverse impacts to the environment, public trust uses, and other legal users of water.

ORDER

IT IS HEREBY ORDERED that the petition of Merced Irrigation District (Merced) and Modesto and Turlock Irrigation Districts (MID/TID) for changes involving the transfer to instream use of up to a total of 47,000 acre-feet per year of water during April and/or May of double-step years (defined below) under Licenses 2685, 6047, and 11395 (Applications 1224, 10572, and 16186) of Merced and Licenses 5417 and 11058 (Applications 1233 and 14127) of MID/TID is approved, subject to the following terms and conditions, which shall expire on December 31, 2011, or at such time as the San Joaquin River Agreement (SJRA) is terminated, whichever occurs first. The changes approved in this order are in addition to the changes to the above-listed licenses approved in State Water Resources Control Board (SWRCB) Decision 1641 (D-1641), as revised in Order WR 2000-02. Terms 1 and 2 on page 166 of D-1641, terms 5, 6, 7, 8, and 9 on page 168 of D-1641, and term 2 on page 169 of D-1641 apply to the changes approved herein, and this approval is subject to compliance with those terms and conditions as well as the following terms and conditions.

1. The flows provided by Licensee pursuant to the SJRA shall, during the long-term changes approved in D-1641 and in this Order, satisfy any responsibility of Licensee to meet the objectives in Table 1, 2, and 3 of D-1641. When the SJRA expires or is terminated, the SWRCB will give notice and will commence a proceeding to determine the responsibility of Licensee to meet the objectives.
2. During years when the sum of the current year’s 60-20-20 indicator (as defined in Table 1) and the previous year’s 60-20-20 indicator is seven (7) or greater (“double-step years”), Licensee shall meet the target flows in Table 2 for the protection of fish and wildlife beneficial uses on the San Joaquin River at Airport Way Bridge, Vernalis during the 31-day pulse flow period in April and May¹ of each year while the SJRA is in effect.

Table 1

SJR Basin 60-20-20 Classification	60-20-20 Indicator
Wet	5
Above Normal	4
Below Normal	3
Dry	2
Critical	1

¹ The timing of the 31-day pulse flow is to be determined by the San Joaquin River Technical Committee (SJRTC). The SJRTC is composed of technical experts appointed by the parties to the SJRA to implement the Vernalis Adaptive Management (VAMP) experiment and other technical activities that its members deem appropriate to meet the goals of the SJRA.

Table 2

Existing Flow² (cfs)	Target Flow (cfs)
0-1,999	3,200
2,000-3,199	4,450
3,200-4,449	5,700
4,450-5,699	7,000
5,700-or greater	7,000 or Existing Flow whichever is higher

The total amount of water authorized for long-term change by this Order under Licenses 2685, 6047, 11395, 5417 and 11058 together, to meet the double-step, shall not exceed 47,000 acre-feet annually. Water provided by the Licensee shall be measured at the Licensee’s last point of control.

During double-step years, Merced and MID/TID, respectively, shall withdraw no more water from storage for beneficial uses than the 516,110 acre-feet authorized for use under Licenses 2645 and 11395, and 951,100 acre-feet authorized for use under Licenses 5417 and 11058. To the extent that water transferred under this change is withdrawn from storage, the withdrawn water shall be counted against the maximum withdrawal limitations specified in the licenses.

² “Existing flows” will be determined by the SJRTC. Existing flow is defined as the forecasted flows in the San Joaquin River at Vernalis during the pulse flow period that would exist absent the SJRA or water acquisitions, including but not limited to the following:

1. Tributary minimum instream flows pursuant to Davis-Grunsky, Federal Energy Regulatory Commission, or other regulatory agency orders existing on the date of this agreement;
2. Water quality or scheduled fishery releases from New Melones Reservoir;
3. Flood control releases from any non-federal storage facility required to be made during the pulse flow period pursuant to its operating protocol with the U.S. Army Corps of Engineers in effect when the SJRA is executed;
4. Uncontrolled spills not otherwise recaptured pursuant to water right accretions (less natural depletions) to the system; and/or
5. Local runoff.

3. Licensee shall utilize flow ramping rates acceptable to the U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NOAA Fisheries) and the California Department of Fish and Game (DFG) for protection of downstream fish and wildlife resources during releases of water for the double-step flows.

4. At times when the U.S. Bureau of Reclamation (USBR) is releasing water from New Melones Reservoir or bypassing inflow for the purpose of meeting the Vernalis salinity objective and/or the Vernalis fish and wildlife flow objective, or when Standard Permit Term 93 is in effect, or when salinity objectives and/or fish and wildlife flow objectives at Vernalis are not being met, Licensee shall not replenish stored water or foregone diversions provided for the April-May double-step. The Executive Director of the SWRCB is delegated authority to ensure that the USBR does not use this condition to increase the obligation of Licensee.

5. The SWRCB reserves jurisdiction over the long-term changes authorized in this Order, to supervise the diversion, release, and use of water under this Order and to coordinate or modify terms and conditions, for the protection of other legal users of water, fish, wildlife, instream beneficial uses, and the public interest as future conditions may warrant. The SWRCB delegates authority to the Executive Director of the SWRCB to take actions under this reservation of jurisdiction when the action is consistent with this Order.

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6. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). If a “take” will result from any act authorized under this Order, the Licensee shall obtain authorization for an incidental take prior to construction or operation. Licensee shall obtain authorization for an incidental take prior to construction or operation.

CERTIFICATION

The undersigned, Clerk 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 zDate.

AYE:

NO:

ABSENT:

ABSTAIN:

Debbie Irvin
Clerk to the Board