

**YUBA COUNTY WATER AGENCY'S
CLOSING BRIEF
FOR STATE WATER RESOURCES CONTROL BOARD'S
DECEMBER 5-6, 2007 HEARING ON
YUBA COUNTY WATER AGENCY'S CHANGE PETITIONS FOR
LOWER YUBA RIVER ACCORD**

1. Introduction

As discussed in detail in the written opening statement that the Yuba County Water Agency (YCWA) filed for this hearing, when the SWRCB adopted Revised Decision 1644 ("RD-1644") in 2003, Board Members Baggett and Carlton (two of the three Board Members present at that meeting) strongly encouraged YCWA and the other parties to try to resolve the pending issues regarding RD-1644. Following that encouragement, representatives of YCWA and the other parties to the Yuba Accord agreements worked hard for several years to develop these agreements.

All of the parties to these agreements now support the Yuba Accord, which is one of the most significant multi-party consensus packages in the history of California water law. Now that this consensus has been achieved, it is appropriate for the SWRCB to approve YCWA's petitions to modify YCWA's water-right permits and RD-1644 so that YCWA and these other parties may implement the Yuba Accord.

The limited number of comments on the Yuba Accord Draft EIR/EIS, the very few protests to YCWA's change petitions for the Yuba Accord, the lack of any legal challenge to the Yuba Accord Final EIR/EIS, the lack of any substantial evidence at the SWRCB hearing in opposition to the Yuba Accord, and the policy statements and testimony presented at the hearing in support of the Yuba Accord all demonstrate that the Yuba Accord is precisely the type of comprehensive, broadly-supported settlement that the SWRCB requested and encouraged.

2. Yuba Accord Draft and Final EIR/EIS

As YCWA General Manager Curt Aikens testified during the December 5 SWRCB hearing,

YCWA certified the final EIR for the Yuba Accord on October 23, 2007 and filed its notice of determination with the Yuba County Clerk on October 24, and no challenge to the final EIR was filed before the 30-day deadline for challenges to environmental impact reports (Pub. Res. Code, § 21167, subd. (c)). (See Reporter's Transcript ("RT") of Dec. 5, 2007 hearing, pp. 42-43, 46.)

Of the potential impacts of the Yuba Accord that were evaluated in the EIR/EIS, only one was found to be potentially unreasonable under the CEQA Yuba Accord Alternative, in comparison to the No Project Alternative: the impact that will result from increases in long-term average power consumption for groundwater pumping within YCWA's Member Unit service areas. (See Final EIR/EIS, exh. YCWA-2, p. 1-26.) For all other potential impacts, the EIR/EIS concludes that the CEQA Yuba Accord Alternative, in comparison to the No Project Alternative, will not have any unreasonable effects.

Because these impacts on power consumption do not concern fish, wildlife or other instream beneficial uses, the SWRCB may approve YCWA's petitions even though these power-consumption impacts will occur. Moreover, in its Resolution No. 2007-23, which certified the final EIR/EIS and approved the Yuba Accord, the YCWA Board of Directors adopted a statement of overriding considerations, which concludes that the Yuba Accord and its overall benefits outweigh its unavoidable significant impacts on power consumption, and YCWA therefore decided to approve the Yuba Accord. (Exh. YCWA-3, pp. 1-4, 19-21.) If the SWRCB decides that it needs to address this issue, then the SWRCB may reach a similar conclusion in its order on YCWA's petitions.

3. Resolution of Hearing Issues

In its December 3 written opening statement, YCWA discussed the hearing issues that were stated in the SWRCB's September 6, 2007 notice and October 1, 2007 supplemental notice, and YCWA explained in detail, with numerous citations to supporting evidence, why the SWRCB's order after this hearing should contain the following findings and conclusions on these issues:

- A. Implementation of the Yuba Accord will not injure or harm any legal user of water.
- B. The proposed changes will not initiate any new water rights.
- C. Implementation of the Yuba Accord will not unreasonably affect fish, wildlife or other instream beneficial uses of water.
- D. Implementation of the Yuba Accord will provide a level of protection for fisheries resources in the lower Yuba River during the term of the Yuba Accord Fisheries Agreement that will be equivalent to, or better than, that which RD-1644 would provide.
- E. Implementation of the Yuba Accord will not unreasonably affect the overall economy of Yuba County, the area from which water would be transferred.
- F. The SWRCB should approve YCWA's petition for modification of water-right Permits 15026, 15027 and 15030.
- G. The SWRCB should amend RD-1644 to specify that it is a non-precedent decision under Government Code section 11425.60.
- H. The SWRCB should approve YCWA's long-term transfer petition.

During the hearing, Cordua Irrigation District's attorney asked some questions about the potential impacts of groundwater pumping for the Yuba Accord on groundwater conditions in the North Yuba Basin. In their responses to these questions, civil engineers Andy Draper and Stephen Grinnell explained in detail why the Yuba Accord, with its groundwater monitoring requirements, pumping limitations and mitigation measures, will not have any unreasonable effects on groundwater, and no other witness provided any contrary evidence. It therefore is appropriate for the SWRCB to issue an order with conclusions that the Yuba Accord will not have any unreasonable effects on groundwater in the Yuba Basin.

During the hearing, the Anglers Committee's representative asked some questions about the potential impacts of the Yuba Accord on fisheries in the Yuba River and the Delta. In his responses to these questions, fisheries biologist Paul Bratovich explained in detail why the Yuba Accord will not have any unreasonable effects on fish in the Yuba River or the Delta, and why the Yuba Accord

will provide a level of protection for fish in the Lower Yuba River during the term of the Fisheries Agreement that will be equivalent to or better than the level of protection that would be provided by Revised Decision 1644. No other witness provided any contrary evidence.

The only pending protests to YCWA's petitions are those filed by the Anglers Committee. However, despite several requests from the SWRCB, the Anglers Committee has not provided any substantial evidence to support its protests. While the Anglers Committee's protest and subsequent submittals cite the court's interim remedies order in *NRDC v. Kempthorne*, the Anglers Committee has not submitted any substantial evidence demonstrating that the Yuba Accord will have any unreasonable impacts on Delta smelt or any other Delta fish species.

Under these circumstances, it is appropriate for the SWRCB to issue an order that contains the findings and conclusions that are listed above and that approves YCWA's petitions.

4. Provisions That Should Not Be Included In Order

As discussed in YCWA's written opening statement, the Yuba Accord is a carefully prepared and negotiated package of three inter-dependent agreements. Any substantive changes to the proposed amendments to RD-1644 that are in the Fisheries Agreement, or any additional conditions on YCWA's long-term transfer, would upset the careful balance that was achieved in the package and could lead to termination of the Yuba Accord agreements, failure of the Yuba Accord and re-activation of the RD-1644 litigation. YCWA therefore asks the SWRCB not to make such changes and not to impose any such additional conditions in its order approving YCWA's petitions. Instead, the SWRCB's order should just contain the terms in Exhibits C, D and E to YCWA's written opening statement.¹

¹For reference, copies of these Exhibits C, D and E are attached to this closing brief.

a. The SWRCB should not include the Yuba Accord Fisheries Agreement flow schedules as specific terms in YCWA's water-right permits.

During the January 10, 2006 hearing on YCWA's change petition for the 2006 Pilot Program, DWR witness Teresa Geimer testified that, if the SWRCB were to impose the Yuba Accord instream flows as regulatory requirements, then DWR would not be willing to pay for any transfer water that would be produced by the Yuba Accord instream flows, because transfer water must be "above the regulatory baseline."² Because of this DWR policy, one of the fundamental premises of the Yuba Accord is that YCWA will agree under the Yuba Accord Fisheries Agreement to provide the increments of the Yuba Accord flows that exceed the RD-1644 interim instream-flow requirements (as modified in the proposed order in the attached exhibit C), and that the Yuba Accord flows will not be explicitly specified in YCWA's water-right permits. If this premise were to be violated, then the transferability of this water to DWR and Reclamation could be drawn into question, and the entire Yuba Accord could be at risk.

Following this premise, Term 6 of the proposed order that is attached as Exhibit E does not contain an explicit statement of the Yuba Accord instream flows. Instead, it provides:

6. YCWA shall release water to the Lower Yuba River for the transfer in accordance with the flow schedules contained in the Lower Yuba River Fisheries Agreement on file with the State Water Board as exhibit YCWA-9 for this proceeding.

This proposed term is based on the corresponding language in Term 6 of Order WR 2007-0012-DWR, which was issued for the 2007 Pilot Program. Term 6 of this order provides:

6. YCWA shall release water to the Lower Yuba River for the transfer in accordance with the flow schedule contained in the *Fisheries Agreement for 2007 Lower Yuba River Pilot Program* (2007 Fisheries Agreement), on file with the State Water Board under Application 5632.

²Ms. Geimer's testimony appears at pages 142-143 of the transcript of the January 10, 2006 hearing. This transcript is in SWRCB staff exhibit 1a for the present hearing.

(Italics in original.) Term 6 of Order WR 2006-0010-DWR, which was issued for the 2006 Pilot Program, contains almost exactly the same language.

Terms 6 of Orders WR 2006-0010-DWR and WR 2007-0012-DWR and the proposed order attached as Exhibit E all closely track term 20 of YCWA's water-right Permit 5632, terms 19 of YCWA's water-right Permits 15027 and 15030, and unnumbered terms of YCWA's water-right Licenses 5631, 15205 and 15563.³ Each of these terms provides that the water-right permit or license is subject to a specified agreement between YCWA and CDFG, and none of these permits or licenses contain any explicit statements of the lower Yuba River instream flows. Thus, rather than being some type of a new approach to specifying instream-flow requirements, the treatment of lower Yuba River instream flows in YCWA's proposed order is completely consistent with the SWRCB's treatments of lower Yuba River instream flows in past orders, permits and licenses.

Moreover, if YCWA ever were to violate the instream-flow provisions of the Lower Yuba River Fisheries Agreement, then the other parties almost certainly would take actions to enforce one or more of the several different powerful remedies that are specified in the Fisheries Agreement. CDFG is California's trustee agency with regard to the fish and wildlife of the state (Cal. Code Regs., tit. 14, § 15386(a)), is responsible for administering the Fish and Game Code (Fish & Game Code, § 702), and specifically the California Endangered Species Act (Fish & Game Code, §§ 2050-2116), and has expertise regarding the streamflows that are necessary to establish and maintain fisheries (*California Trout, Inc. v. Superior Court* (1990) 218 Cal.App.3d 187, 203, 211). Also, one of the primary purposes of the four NGO's that are parties to the Fisheries Agreement, South Yuba River Citizens League, Friends of the River, Trout Unlimited and The Bay Institute, is to take

³These YCWA water-right permits are in SWRCB staff exhibit 1 for the present hearing. The SWRCB may take official notice of YCWA's water-right licenses, which are in the SWRCB's official water-right files.

actions to protect and enhance California's fisheries.

The Fisheries Agreement would give these parties strong remedies for the enforcement of the Yuba Accord instream-flow schedules. Section 5.1.2 of the Fisheries Agreement (exh. YCWA-9, p. 9) gives these parties the right to immediately ask a court to order YCWA to specifically perform its obligations under the agreement, including the rights to ask the court to issue a temporary restraining order, a preliminary injunction and a final injunction. Section 6.1.4 of this agreement provides that YCWA shall pay \$100,000 for any material violation of the Yuba Accord flow schedules and section 6.2.4 of this agreement provides for penalties up to \$1,000 per day for all violations of these flow schedules. YCWA also would have to provide "make up" water for any such violations. (Exh. YCWA-9, §§ 6.1.4, 6.2.9, pp. 23, 26.)

These remedies are much more stringent than the SWRCB's corresponding remedies under the Water Code. For example, the SWRCB may not seek an injunction requiring a water-right permittee or licensee to comply with instream-flow requirements under Water Code section 1845 unless the SWRCB first has issued a cease-and-desist order under section 1831, which it may do only after first giving the permittee or licensee notice and an opportunity for a hearing. This process therefore would be much slower than the specific-performance remedy in the Fisheries Agreement. Also, the maximum penalties under Water Code section 1052 for illegal diversions of water are \$500 per day, and the maximum penalties for violations of cease-and-desist orders under Water Code section 1845 are \$1,000 per day, both of which are far less than the \$100,000 that YCWA could be forced to pay under the Fisheries Agreement. Finally, the Water Code does not give the SWRCB any authority to require a permittee or licensee to provide "make up" water for violations of instream-flow requirements.

Term 1.c on pages 2-4 of the attached Exhibit C provides that, if the Fisheries Agreement were to terminate early, then the Yuba Accord flow schedules immediately would go into effect as

explicit instream-flow requirements in YCWA's water-right permits. The SWRCB's order therefore would have an automatic back-up to the Fisheries Agreement. Also, Term 10 on page 3 of Exhibit E would explicitly confirm that the SWRCB would retain its continuing authority under the public trust doctrine and the Water Code sections 100 and 275. Because of these back-ups, the SWRCB would not be abdicating its water-right responsibilities by approving the proposed order and the SWRCB's approval of the proposed orders would not cause any improper delegations of the SWRCB's water-rights authority.

To avoid decades of water-rights hearings and court challenges to SWRCB decisions, complex issues like those involving lower Yuba River instream flows and the transferability of Yuba River Project water require innovative solutions. The SWRCB should do all that it can to facilitate such innovative solutions, particularly solutions like the Yuba Accord, which further the overriding State policy that "the water resources of the State be put to beneficial use to the fullest extent of which they are capable," (Cal. Const., art. 10, § 2), and the explicit State policies authorizing and encouraging water transfers (see Water Code, §§ 109, 382 & 475). Here, the SWRCB can facilitate the innovate solution that is the Yuba Accord and further these State policies without abdicating its responsibilities by approving YCWA's petitions and issuing the attached proposed orders without any additional terms.

b. The SWRCB should not include any Accord-specific Delta export limitations in its order approving YCWA's petitions.

The Final EIR/EIS, the testimony of Andy Draper and the testimony of Paul Bratovich all discuss the effects of the changes on the Yuba Accord and the impact analyses in the Draft EIR/EIS from the court's interim-remedies order in *NRDC v. Kempthorne*. (See exh. YCWA-2, pp. 3-1 to 3-9; exh. YCWA-14, pp. 11-15; exh. YCWA-16, pp. 11-17.) As discussed in these exhibits, while these changes will reduce the amounts of Yuba Accord transfer water that may be exported from the

Delta, they will not cause the Yuba Accord to unreasonably affect any fish in the Delta. Fundamentally, this conclusion is not surprising because, even with the interim remedies order in effect, lower Yuba River flows will not change significantly, Delta exports of Yuba Accord transfer water will be slightly reduced, and Delta outflows of Yuba Accord transfer water will slightly increase. Consistent with this conclusion, DWR, NMFS and FWS all still support the Yuba Accord.

During the December 5 SWRCB hearing, SWRCB staff asked for information about how the Yuba Accord will change flows in Old and Middle Rivers. As Dr. Draper testified (see RT, pp. 134-135), that information is contained in Appendix F5 of the Yuba Accord Draft EIR/EIS (exh. YCWA-2), in the folder for the comparison of Scenario 3 against Scenario 2, in the tables at pages 300 and 313.⁴ These tables show that reverse flows in these two rivers (indicated by negative numbers in these tables) during May and June would be somewhat lower (i.e., closer to zero) under the Yuba Accord than under the CEQA No Project Alternative. During December through April, the other months when Delta smelt may be affected by these reverse flows, the reverse flows would be slightly higher, but all of the changes would be very small. There is no evidence that these very small changes in Old and Middle River flows would unreasonably affect Delta smelt.

The SWRCB's order approving YCWA's petitions should not contain any Accord-specific limitations on Delta exports for two reasons. First, the Yuba Accord Draft EIR/EIS concluded that the Yuba Accord will not have any unreasonable effects on any Delta fish species (see Draft EIR/EIS, exh. YCWA-2, pp. 10-146 to 10-150), and no contrary evidence was submitted during the hearing. Second, Yuba Accord transfer water will be commingled with all of the other water that is flowing into the Delta and, on a real-time basis, it would be difficult or impossible to implement any Accord-specific Delta export limitations. (Under exhibit 1 to the Yuba Accord Water Purchase

⁴For reference, copies of the tables are attached to this brief as exhibits A and B.

Agreement, exh. YCWA-11, accounting of the amounts of Yuba Accord transfer water will be done only after the transfers of the water have occurred.)

The SWRCB's order also should not impose any pumping limits based on the different components of Yuba Accord transfer water that will be exported. As Mr. Grinnell testified, the four components of Yuba Accord transfer water that are described in the Yuba Accord Water Purchase Agreement are just parts of an accounting mechanism that will not affect the operations of the Yuba Accord flow schedules. (RT, pp. 126-127.)

DWR's and Reclamation's Delta exports already are subject to extensive regulation by the SWRCB through the SWRCB's Decision 1641 and numerous related orders, and by Endangered Species Act biological opinions and court orders in the *NRDC v. Kempthorne* litigation and other litigation. These orders and requirements already significantly limit these exports and already provide significant protections for Delta fish. Term 4 on page 2 of the proposed order that is attached as exhibit E explicitly recognizes that any exports of Yuba Accord transfer water from the Delta will be subject to all of these orders and requirements. During the hearing, DWR witness John Leahigh confirmed this. (RT, p. 143.) Because all exports of Yuba Accord water will be subject to these orders and requirements, it is not necessary, and it would not be appropriate, for the SWRCB's order to impose any additional, specific conditions on exports of Yuba Accord transfer water from the Delta.

c. Early termination of the Environmental Water Account would not affect implementation of the Yuba Accord

During the December 5 SWRCB hearing, questions were raised regarding the potential effects of an early termination of the Environmental Water Account (EWA) on implementation of the Yuba Accord. (See RT, pp. 127-128, 161-165.) This issue is addressed in subsection 23.D of the final Water Purchase Agreement, a copy of which is being filed as exhibit YCWA-11a. The

relevant portion of subsection 23.D provides:

If the EWA terminates, DWR agrees that Component 1 Water remaining to be delivered under this Agreement will be managed annually, as follows: (a) Component 1 Water in any year will be used to enhance water supply reliability of the Delta export facilities by off-setting new mandatory restrictions imposed on the CVP and SWP, including those imposed by the federal court order in *NRDC v. Kempthorne*, or through a subsequent biological opinion for conservation or protection of fish, and (b) if any Component 1 Water remains after off-setting the restrictions set forth in subsection (a) above, then the remaining Component 1 Water will be used as determined by DWR in close coordination with the California Department of Fish and Game and consistent with the water supply reliability project requirements of the funding source from which this water was purchased (Chapter 7(d) of Proposition 50, California Water Code Section 79550(d)).

Because the reductions in Central Valley Project and State Water Project Delta annual exports that have resulted from the interim remedies order in *NRDC v. Kempthorne* far exceed the 60,000 acre-feet per year of Component 1 water that will be provided by the Yuba Accord, and because reductions in such exports under subsequent biological opinions for Delta fish almost certainly will continue to substantially exceed 60,000 acre-feet per year, all Component 1 Yuba Accord water almost certainly would continue to be used to offset the effects of the mandatory restrictions on Delta exports that are described in subsection 23.D, and thus would continue to be exported in the same manner, even if EWA were to terminate. Moreover, because Components 2, 3 and 4 Yuba Accord water are not administered by EWA, they would not be affected by a termination of EWA. The analyses of Delta exports of Yuba Accord water in the Yuba Accord Draft and Final EIR/EIS therefore almost certainly would not change, even if EWA were to terminate. The SWRCB therefore may issue its order approving YCWA's petition, without any specific provisions regarding EWA, even though there is a possibility that EWA may terminate early.

d. The SWRCB should not impose any groundwater pumping limits based on North Yuba Basin groundwater levels

During the hearing, Cordua Irrigation District's attorney proposed that the SWRCB's order approving YCWA's petitions include a provision that, if groundwater levels in the North Yuba Basin drop to the levels that they were during the fall of 1991, then the SWRCB's approval of transfers would be suspended until further order of the SWRCB. (RT, p. 39.)⁵

This proposal should be rejected. As Mr. Grinnell explained during the hearing, groundwater in the North Yuba Basin has not been pumped significantly, except in 1991, 1994, 2001 and 2002, so groundwater levels there could drop below the 1991 levels without causing any significant impacts. (RT, pp. 70-71.) Instead, the approach that is consistent with the evidence that was submitted during the SWRCB hearing is for the SWRCB's order approving YCWA's petitions to require YCWA to comply with Mitigation Measures 6-1 and 6-2 in the Yuba Accord Final EIR/EIS (exh. YCWA-2). Term 6 on page 3 of the proposed order attached as exhibit E contains such a requirement. And Mitigation Measures 6-1 and 6-2 contain detailed monitoring, reporting and action requirements that will assure that implementation of the Yuba Accord will not have any unreasonable impacts on groundwater. (See exh. YCWA-2, pp. 6-8 to 6-13.) Exhibit 3 of the Yuba Accord Water Purchase Agreement (exh. YCWA-11) contains similar requirements.

Because the Yuba Accord groundwater-substitution program has been carefully structured to require extensive monitoring of groundwater levels and to limit the amounts of groundwater pumped under this program to levels that will not cause any significant impacts to users of

⁵Although this proposal, as stated, would apply to all Yuba Accord water transfers, it actually must have been intended to apply only to groundwater-substitution transfers involving pumping from the North Yuba Groundwater Basin, because neither surface-water transfers nor pumping from the South Yuba Groundwater Basin for groundwater-substitution transfers would affect North Yuba Groundwater Basin groundwater levels.

groundwater in the Yuba Basin, and because there is no substantial evidence to support Cordua Irrigation District's proposal, its proposed pumping restriction is neither necessary nor appropriate.


5. Conclusion

For the reasons discussed in this closing brief, the Yuba County Water Agency asks the State Water Resources Control Board to approve YCWA's pending petitions for the Yuba Accord, and to issue an order that contains the provisions in the attached exhibits C, D and E and that does not contain any additional terms or conditions.

Because the RD-1644 long-term instream-flow requirements are scheduled to go into effect on April 1, 2008, the SWRCB needs to adopt its final order approving these petitions with an effective date before the end of March 2008. To give interested parties sufficient time to review and comment on the SWRCB's draft order, we request that the draft order be circulated in early February, and that, if necessary, the SWRCB consider the draft order during its February 6 or February 20 workshop.

Dated: December 31, 2007

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Long-term and Water Year Type Average Flow at the Old River at Bacon Island under CEQA No Project Alternative and CEQA Yuba Accord Alternative Conditions

Analysis Period	Flow (cfs)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Long-term												
Full Simulation Period²												
CEQA No Project Alternative	-2,995	-2,633	-2,283	-2,294	-1,006	-1,118	-533	-555	-1,215	-3,438	-3,547	-3,293
CEQA Yuba Accord Alternative	-3,024	-2,639	-2,298	-2,308	-1,014	-1,120	-533	-545	-1,137	-3,502	-3,606	-3,310
Difference	-28.3	-6.4	-14.7	-14.3	-8.3	-1.9	0.0	9.3	77.5	-64.3	-59.0	-16.9
Percent Difference ³	0.9	0.2	0.6	0.6	0.8	0.2	0.0	-1.7	-6.4	1.9	1.7	0.5
Water Year Types¹												
Wet												
CEQA No Project Alternative	-2,593	-2,731	-1,464	-1,177	139	428	308	-241	-611	-3,500	-4,566	-4,063
CEQA Yuba Accord Alternative	-2,642	-2,739	-1,467	-1,177	139	428	308	-241	-611	-3,632	-4,617	-4,063
Difference	-48.2	-8.0	-3.6	-0.4	0.0	0.0	0.0	0.1	0.0	-131.4	-50.5	-0.5
Percent Difference	1.9	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	3.8	1.1	0.0
Above Normal												
CEQA No Project Alternative	-2,524	-2,352	-3,584	-2,651	-281	-460	-194	-390	-1,597	-4,427	-4,544	-4,396
CEQA Yuba Accord Alternative	-2,528	-2,353	-3,590	-2,651	-281	-460	-194	-390	-1,597	-4,431	-4,573	-4,397
Difference	-3.3	0.0	-5.9	-0.2	0.0	0.0	0.0	0.1	0.0	-3.4	-28.8	-1.2
Percent Difference	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	0.0
Below Normal												
CEQA No Project Alternative	-4,350	-2,622	-1,783	-3,560	-1,807	-1,365	-1,489	-1,357	-2,519	-4,843	-4,692	-3,397
CEQA Yuba Accord Alternative	-4,350	-2,622	-1,783	-3,560	-1,807	-1,365	-1,489	-1,357	-2,519	-4,838	-4,719	-3,348
Difference	-0.5	-0.5	0.0	-0.1	0.0	-0.3	-0.1	0.0	0.0	4.7	-27.7	49.0
Percent Difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.6	-1.4
Dry												
CEQA No Project Alternative	-3,476	-2,793	-2,498	-3,150	-2,158	-2,703	-1,432	-799	-1,708	-4,139	-3,958	-3,644
CEQA Yuba Accord Alternative	-3,452	-2,768	-2,552	-3,152	-2,161	-2,703	-1,432	-760	-1,585	-4,270	-4,099	-3,669
Difference	23.6	25.7	-54.2	-1.3	-3.0	-0.2	0.0	39.4	123.3	-130.9	-141.8	-24.8
Percent Difference	-0.7	-0.9	2.2	0.0	0.1	0.0	0.0	-4.9	-7.2	3.2	3.6	0.7
Critical												
CEQA No Project Alternative	-2,931	-2,522	-2,511	-2,329	-1,359	-1,611	-600	-578	-1,009	-2,137	-1,572	-1,781
CEQA Yuba Accord Alternative	-2,996	-2,556	-2,512	-2,376	-1,385	-1,617	-600	-578	-844	-2,119	-1,591	-1,827
Difference	-65.5	-34.3	-0.8	-47.0	-25.7	-6.3	0.0	0.0	165.0	18.0	-19.6	-46.3
Percent Difference	2.2	1.4	0.0	2.0	1.9	0.4	0.0	0.0	-16.3	-0.8	1.3	2.6

¹ As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB 1995)

² Based on the 17-year simulation period

³ Relative difference of the monthly average

Long-term and Water Year Type Average Flow at the Middle River at Middle River under CEQA No Project Alternative and CEQA Yuba Accord Alternative Conditions

Analysis Period	Flow (cfs)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Long-term												
Full Simulation Period²												
CEQA No Project Alternative	-2,982	-2,770	-2,537	-2,553	-1,739	-1,771	-1,345	-1,408	-1,822	-3,315	-3,367	-3,181
CEQA Yuba Accord Alternative	-3,001	-2,774	-2,545	-2,562	-1,745	-1,772	-1,345	-1,402	-1,772	-3,361	-3,409	-3,193
Difference	-18.7	-4.1	-8.5	-8.7	-5.1	-1.1	0.0	5.8	50.1	-46.6	-41.2	-11.2
Percent Difference ³	0.6	0.1	0.3	0.3	0.3	0.1	0.0	-0.4	-2.7	1.4	1.2	0.4
Water Year Types¹												
Wet												
CEQA No Project Alternative	-2,744	-2,905	-2,062	-1,863	-1,046	-819	-834	-1,235	-1,481	-3,415	-4,110	-3,775
CEQA Yuba Accord Alternative	-2,776	-2,910	-2,064	-1,863	-1,046	-819	-834	-1,235	-1,481	-3,507	-4,146	-3,775
Difference	-32.2	-5.2	-2.2	0.3	0.0	0.0	0.0	-0.3	0.0	-92.4	-35.9	-0.4
Percent Difference	1.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.9	0.0
Above Normal												
CEQA No Project Alternative	-2,644	-2,535	-3,332	-2,917	-1,439	-1,437	-1,168	-1,325	-2,044	-3,940	-4,009	-3,834
CEQA Yuba Accord Alternative	-2,646	-2,535	-3,335	-2,917	-1,439	-1,437	-1,168	-1,325	-2,044	-3,945	-4,032	-3,835
Difference	-2.1	0.0	-2.8	0.0	0.0	0.0	0.0	-0.3	0.0	-4.2	-22.2	-0.7
Percent Difference	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	0.0
Below Normal												
CEQA No Project Alternative	-3,849	-2,722	-2,164	-3,408	-2,265	-1,983	-1,960	-1,914	-2,621	-4,130	-4,026	-3,165
CEQA Yuba Accord Alternative	-3,849	-2,722	-2,164	-3,408	-2,265	-1,982	-1,960	-1,914	-2,621	-4,128	-4,047	-3,135
Difference	-0.3	-0.3	0.0	0.1	0.2	0.8	-0.1	0.0	0.0	1.9	-20.9	30.1
Percent Difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	-1.0
Dry												
CEQA No Project Alternative	-3,293	-2,846	-2,664	-3,044	-2,403	-2,757	-1,898	-1,569	-2,142	-3,787	-3,614	-3,373
CEQA Yuba Accord Alternative	-3,277	-2,830	-2,695	-3,044	-2,405	-2,757	-1,898	-1,544	-2,063	-3,878	-3,711	-3,389
Difference	16.2	15.9	-31.7	-0.1	-1.9	0.2	0.0	24.8	79.4	-91.6	-96.6	-16.5
Percent Difference	-0.5	-0.6	1.2	0.0	0.1	0.0	0.0	-1.6	-3.7	2.4	2.7	0.5
Critical												
CEQA No Project Alternative	-2,934	-2,680	-2,667	-2,535	-1,917	-2,026	-1,360	-1,383	-1,658	-2,423	-2,039	-2,177
CEQA Yuba Accord Alternative	-2,978	-2,701	-2,667	-2,565	-1,933	-2,030	-1,361	-1,382	-1,552	-2,415	-2,053	-2,207
Difference	-43.5	-21.3	-0.2	-29.9	-15.9	-3.9	-0.1	0.3	106.7	8.6	-13.7	-30.3
Percent Difference	1.5	0.8	0.0	1.2	0.8	0.2	0.0	0.0	-6.4	-0.4	0.7	1.4

1 As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB 1995)

2 Based on the 17-year simulation period

3 Relative difference of the monthly average

EXHIBIT C

**[PROPOSED ORDER ON PETITION TO MODIFY YCWA WATER-RIGHT PERMITS
15026, 15027 AND 15030]**

IT IS HEREBY ORDERED that the petition of the Yuba County Water Agency for modification of water-right Permits 15026, 15027 and 15030 (Applications 5632, 15204 and 15574), filed on April 27, 2007, is approved subject to the provisions of this order, and Permits 15026, 15027, and 15030 are amended by making the following changes to Revised Decision 1644:

1. Term 1 on pages 173-176 of Revised Decision 1644 is amended to read as follows:

1. For the protection of fish and other public trust resources in the lower Yuba River, permittee shall release or bypass sufficient water to maintain the following instream flows in the lower Yuba River. The minimum flow requirements shall be maintained as measured by a 5-day running average of average daily streamflows with instantaneous flows never less than 90 percent of the specified flow requirements.

a. Effective immediately upon adoption of this order, streamflow shall be maintained at or above the flows specified in the following table as measured at the USGS gaging installations at Marysville and Smartville:

Instream Flow Requirements

Period	Wet & Above Normal Years (cfs)		Below Normal Years (cfs)		Dry Years (cfs)	
	Smartville Gage	Marysville Gage	Smartville Gage	Marysville Gage	Smartville Gage	Marysville Gage
Sep15-Oct 14	700	250	550	250	500	250
Oct 15-Apr 20	700	500	700	500	600	400
Apr21-Apr 30	--	1,000	--	800	--	400
May1-May 31	--	1,500	--	1,000	--	500
Jun 1	--	1,050	--	800	--	400
Jun 2-Jun 30	--	800	--	800/500'	--	400
Jul 1	--	560	--	560	--	280
Jul 2	--	390	--	390	--	250
Jul 3	--	280	--	280	--	250
Jul 4-Sep 14	--	250	--	250	--	250
Period	Critical Years (cfs)		Conference Years		(See Note 3)	
	Smartville Gage	Marysville Gage				
Sep 15-Oct 1	400	150				
Oct 1-Oct 14	400	250				
Oct 15-Apr 20	600	350				
Apr 21	--	280				
Apr22-Apr30	--	270				
May 1-May 31	--	270				
Jun 1-July 2	--	(See Note 2)				
July 3-Sep 14	--	100				

Table Notes:

1. June 2 - June 15/June 16 - June 30.
2. The interim instream flow requirements for June 1-30 of critical years shall be 245 cfs pursuant to the provisions of the agreement between Yuba County Water Agency and the Department of Fish and Game dated September 2, 1965, except if a lower flow is allowed pursuant to the provisions of the 1965 agreement. The minimum flow on July 2 shall be 70 percent of the flow on July 1.
3. The instream flow requirements for conference years shall be the applicable requirements specified in the agreement between Yuba County Water Agency and the Department of Fish and Game dated September 2, 1965, without the reductions authorized by section 1.6 of that agreement.
 - b. For purposes of this order, wet, above normal, below normal, dry, critical and conference water year types in the table above are as defined in the North Yuba Index. (See Appendix 1.) Determinations of water year classifications shall be made each year within 5 days for the release of the February 1, March 1, April 1, and May 1 forecasts of unimpaired flow of the Yuba River at Smartville published in California Department of Water Resources Bulletin 120 and any subsequent forecast published by the Department of Water Resources. The final year type for the preceding water year shall remain in effect until the February 1 forecast for the current year is available. If the water year type classification would change based on information available from any Department of Water Resources forecast, then the flow requirements in effect from the time the forecast is available shall remain in effect until the following forecast becomes available. Any changes in flows due to a change in water year classification shall be made in accordance with the criteria specified in permittee's Federal Power Act license.
 - c. If, at any time during the term of the Lower Yuba River Fisheries Agreement among the Yuba County Water Agency, the California Department of Fish and Game, the South Yuba Citizens League, Friends of the River, Trout Unlimited and the Bay Institute, that agreement is terminated early (before the Federal Energy Regulatory Commission issues a new long-term Federal Power license for the Yuba River Development Project), then the following instream-flow requirements shall go into effect:

Marysville Gage (cfs)

Schedule	OCT		NOV	DEC	JAN	FEB	MAR	APR		MAY		JUN		JUL	AUG	SEP
	1-15	16-31	1-30	1-31	1-31	1-29	1-31	1-15	16-30	1-15	16-31	1-15	16-30	1-31	1-31	1-30
1	500	500	500	500	500	500	700	1000	1000	2000	2000	1500	1500	700	600	500
2	500	500	500	500	500	500	700	700	800	1000	1000	800	500	500	500	500
3	500	500	500	500	500	500	500	700	700	900	900	500	500	500	500	500
4	400	400	500	500	500	500	500	600	900	900	600	400	400	400	400	400
5	400	400	500	500	500	500	500	500	600	600	400	400	400	400	400	400
6	350	350	350	350	350	350	350	350	500	500	400	300	150	150	150	350

Smartville Gage (cfs)

Schedule	OCT		NOV	DEC	JAN	FEB	MAR	APR		MAY		JUN		JUL	AUG	SEP
	1-15	16-31	1-30	1-31	1-31	1-29	1-31	1-15	16-30	1-15	16-31	1-15	16-30	1-31	1-31	1-30
A	700	700	700	700	700	700	700	700	-	-	-	-	-	-	-	700
B	600	600	600	550	550	550	550	600	-	-	-	-	-	-	-	500

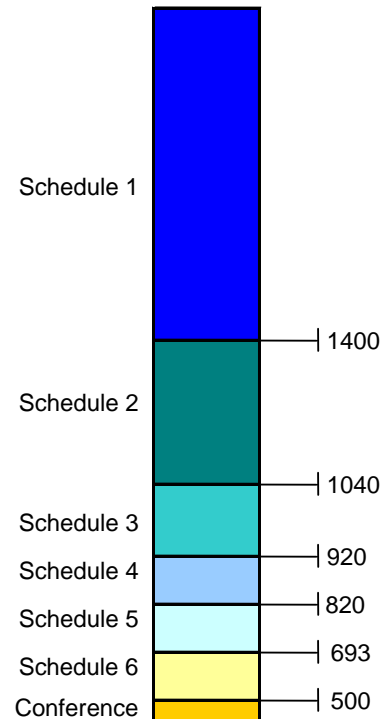
* Schedule A used with Schedules 1, 2, 3 and 4 at Marysville.
 * Schedule B used with Schedules 5 and 6 at Marysville.

Conference Year: applicable schedules specified in agreement between Yuba County Water Agency and the Department of Fish and Game dated September 2, 1965, without the reductions authorized by section 1.6 of that agreement.

The applicable schedules in these instream-flow requirements shall be determined by the following values of the North Yuba Index, subject to the following dry year storage adjustment:

Flow Schedule North Yuba Index
 Year Type Thousand Acre-Feet (TAF)

- Schedule 1 Equal to or greater than 1400
- Schedule 2 Equal to or greater than 1040 and less than 1400
- Schedule 3 Equal to or greater than 920 and less than 1040
- Schedule 4 Equal to or greater than 820 and less than 920
- Schedule 5 Equal to or greater than 693 and less than 820
- Schedule 6 Equal to or greater than 500 and less than 693
- Conference Year Less than 500



Dry Year Storage Adjustment

- In some dry years with Schedule 5 instream-flow requirements, the September 30 New Bullards Bar Reservoir storage may be very low.
 - To ensure sufficient carryover storage in the event of a subsequent very dry year, a dry-year storage adjustment will be made.
 - The dry-year storage adjustment will be made as follows:
 - If the September 30 New Bullards Bar Reservoir storage is less than 400,000 acre-feet, then the Marysville Gage instream-flow requirement will be 400 cfs from October 1 until the next February Bulletin 120 forecasts are available.
 - If the September 30 New Bullards Bar Reservoir storage is less than 450,000 acre-feet but greater than or equal to 400,000 acre-feet, then, the Chief of the Division of Water Rights may, after receiving a request from permittee and giving other interested parties an opportunity to comment, adjust the Marysville Gage instream-flow requirement to 400 cfs from October 1 until the next February Bulletin 120 forecasts are available.
 - When the next February Bulletin 120 forecasts are available, the instream-flow requirements will be based on those forecasts.
- d. All of the preceding instream-flow requirements will be superseded and replaced by the instream-flow requirements in the new long-term Federal Power Act license that the Federal Energy Regulatory Commission issues for the Yuba River Development Project, when that new license goes into effect.

2. Terms 2 and 3 on pages 176-179, and Term 10 on pages 181-183 of Revised Decision 1644 are deleted.

3. Appendix 1 of Revised Decision 1644 is edited to read as follows:

APPENDIX 1

DEFINITION OF THE NORTH YUBA INDEX

The North Yuba Index is an indicator of the amount of water available in the North Yuba River at New Bullards Bar Reservoir that can be utilized to achieve flows on the Lower Yuba River through operations of New Bullards Bar Reservoir. The index is comprised of two components: (1) active storage in New Bullards Bar Reservoir at the commencement of the current water year; and (2) total inflow to New Bullards Bar Reservoir for the current water year, including diversions from the Middle Yuba River and Oregon Creek to New Bullards Bar Reservoir. The following is the definition of the index and the procedure for determining the index for each water year.

$$\text{North Yuba Index} = \text{Sa}^{\text{NBB}} + \text{I}^{\text{NBB}}$$

Where:

Sa^{NBB} = New Bullards Bar Reservoir Active Storage

The New Bullards Bar Reservoir Active Storage for determining the current year North Yuba Index equals the actual recorded amount of water in storage in New Bullards Bar Reservoir on September 30th of the previous water year minus the Federal Energy Regulatory Commission Project License minimum pool amount of 234,000 acre-ft.

and:

I^{NBB} = Forecasted Total Annual Inflow To New Bullards Bar Reservoir

The Forecasted Total Annual Inflow To New Bullards Bar Reservoir shall be based on actual inflow to date to New Bullards Bar Reservoir, including the diversions from the Middle Yuba River and Oregon Creek plus forecasted inflow for the remainder of the water year, where such forecast is based on the Department of Water Resources 50%-exceedance forecast of unimpaired flow contained in Bulletin-120 at the beginning of each month from February until May or June, with periodic updates. The procedure for determining the Forecasted Total Annual Inflow To New Bullards Bar Reservoir is described in the section of this document entitled "*Procedure for Calculating the Forecasted Total Annual Inflow Into New Bullards Bar Reservoir*".

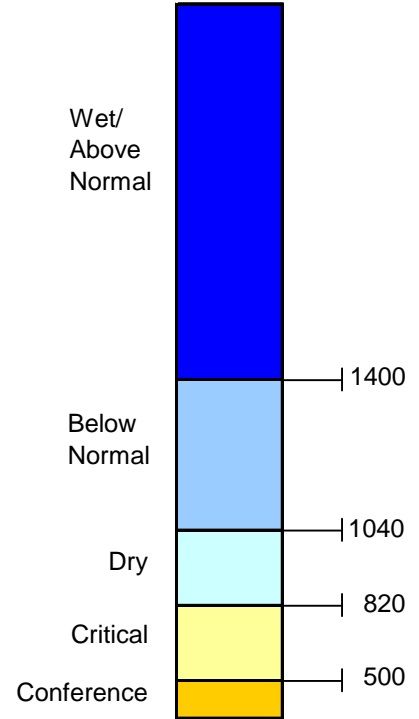
Determination of the North Yuba Index for a water year shall be made based on 50%-exceedance estimates of unimpaired runoff as published in California Department of Water Resources Bulletin 120 beginning in February and updated in March, April and May, and any subsequent updates. The year type for the preceding water year shall remain in effect until the initial forecast of unimpaired runoff for the current year is available.

**YUBA RIVER WATER YEAR CLASSIFICATIONS
 BASED ON THE NORTH YUBA INDEX
 FOR ESTABLISHING REQUIRED FLOWS**

The water year hydrologic classification for the Yuba River to determine the minimum instream flow requirements of Yuba County Water Agency’s water right permits shall be based on the North Yuba Index. Determinations of a year’s classification shall be made in February, March, April, and May and for any subsequent updates.

Year Type	North Yuba Index
<u>Classification</u>	<u>Thousand Acre-Feet (TAF)</u>

Wet and Above Normal	Equal to or greater than 1400
Below Normal	Equal to or greater than 1040 and less than 1400
Dry	Equal to or greater than 820 and less than 1040
Critical	Equal to or greater than 500 and less than 820
Conference Year	Less than 500



**Procedure for Calculating the Forecasted Total Annual Inflow Into
 New Bullards Bar Reservoir**

The forecasted total inflow into New Bullards Bar Reservoir shall be calculated starting in February and updated periodically, but no less than monthly, until May. If a June updated Bulletin 120 forecast or any post May 1 update is published by the Department of Water Resources, then an updated forecast of total inflow to New Bullards Bar Reservoir shall be calculated as described below.

The forecasted total inflow into New Bullards Bar Reservoir is based on two main components: (1) the actual measured inflow into New Bullards Bar Reservoir to date; plus (2) the Bulletin 120 based calculation of forecasted inflow for the remainder of the water year. The following formula shall be used to calculate the forecasted total inflow to New Bullards Bar Reservoir (NBBR):

$$I^{NBB} \text{ (TAF)} = \text{Total Actual Inflow to NBBR from October 1 to the end of Month}^{i-1} + \text{Forecasted Inflow from the beginning of Month}^i \text{ to September 30}$$

(Monthⁱ⁻¹ is the previous month and Monthⁱ is the current month)

Where:

Total actual inflow to NBBR is the calculated inflow based on a daily summation of inflow for the month as follows:

$$\text{Total Actual Inflow to NBBR (TAF)} = \text{Monthly change in stored water (TAF)} + \text{Monthly outflow (TAF)}$$

and where:

The forecasted inflow from the beginning of Monthⁱ to September 30 is calculated using statistically derived linear coefficients applied to the measured inflow into New Bullards Bar reservoir and the Bulletin 120 published 50%-exceedance forecasts of unimpaired flow of the Yuba River at Goodyears Bar and at Smartville, and for the time periods identified in the following table:

Table 1. Coefficients For the Calculation of Forecasted New Bullards Bar Inflow (AF)

Forecast Month	Forecasted For:	Constant (C)	Total Actual Inflow to NBBR (C1)	Bulletin 120 Forecasted Smartville (C2)	Bulletin 120 Forecasted Goodyear's Bar (C3)
February	February	-2,146	0.01424	0.52533	
	March	-3,221	0.02458	0.54787	
	April-July	-30,416	0.01413	0.62473	-0.24081
	August-September	-	0.01593	0.64037	
March	March	-23,495	0.00596	0.55386	
	April-July	-31,134	0.01237	0.62162	-0.23266
	August-September	-	0.01473	0.59396	
April	April-July	-30,665	0.00547	0.61332	-0.19623
	August-September	-	0.01409	0.53241	
May	April-July	-31,652	0.01033	0.61645	-0.22353
	August-September	-	0.01298	0.50071	

For all subsequent forecast updates the May coefficients shall be used, with the forecasted Goodyears Bar runoff equaling 0.273 times the current forecasted Yuba River unimpaired flow at Smartville.

The following procedure shall be used to calculate the Forecasted New Bullards Bar Inflow:

The general formula for Forecasted New Bullards Bar Inflow is:

$$\text{Forecasted NBB Inflow}^i = \text{February NBB Inflow} + \text{March Inflow} + \text{April-July Inflow} + \text{August-September Inflow}$$

Formula terms are only applicable as shown in Table 1. As an example, the March forecast does not include a term for forecasted February NBB Inflow. The following formulas shall be used to calculate the terms of the formula above using the corresponding coefficients from Table 1 *(Note terms are calculated in AF and the result is converted to TAF for use in the calculation of the Forecasted Total Inflow to New Bullards Bar (I^{NBB} (TAF)):*

$$\text{February NBB Inflow} = C + C1 \times \text{Total Actual Inflow to NBB} + C2 \times \text{Forecasted Smartville}^{(\text{February})}$$

$$\text{March NBB Inflow} = C + C1 \times \text{Total Actual Inflow to NBB} + C2 \times \text{Forecasted Smartville}^{(\text{March})}$$

April – July Inflow = C + C1 x Total Actual Inflow to NBB + C2 x Forecasted Smartville^(April - July)
+ C3 x Forecasted Goodyears Bar^(April - July)

August - September Inflow = C1 x Total Actual Inflow to NBB + C2 x Forecasted Smartville^(August - September)

(“Forecasted Smartville” is the DWR forecast for “Yuba River at Smartville Plus Deer Creek”)

The May calculation of Forecasted NBB Inflow and subsequent updated calculations shall be reduced by the actual NBB inflow between April 1 and the calculation date.

Example calculation of the North Yuba Index for February 1, 2003:

Excerpt from February 2003 DWR Bulletin -120:

**FEBRUARY 1, 2003 FORECASTS
APRIL-JULY UNIMPAIRED RUNOFF**

HYDROLOGIC REGION and Watershed	Unimpaired Runoff in 1,000 Acre-Feet					
	HISTORICAL			FORECAST		
	50 Yr Avg	Max of Record	Min of Record	Apr-Jul Forecasts	Pct of Avg	80 % Probability Range
Yuba River						
North Yuba below Goodyears Bar	286	647	51	240	84%	
Yuba River at Smartville Plus Deer Creek	1,044	2,424	200	900	86%	510-1,560

**FEBRUARY 1, 2003 FORECASTS (CONT'D)
WATER YEAR UNIMPAIRED RUNOFF**

Unimpaired Runoff in 1,000 Acre-Feet													
HISTORICAL			DISTRIBUTION								FORECAST		
50 Yr Avg	Max of Record	Min of Record	Oct Thru Jan*	Feb	Mar	Apr	May	Jun	Jul	Aug & Sep	Water Year Forecasts	Pct of Avg	80% Probability Range
564	1,056	102											
2,459	4,926	369	675	255	300	360	380	130	30	30	2,160	88%	1,510-3260

*Unimpaired runoff in prior months based on measured flows

From the published Bulletin-120 information, and from historical gaged date for New Bullards Bar Reservoir, the North Yuba Index can be calculated as follows:

- 1) The end-of-September 2002 New Bullards Bar Reservoir Storage (from USGS gage number 11413515) is 532,088 acre-feet.
- 2) From end-of-October, November, December, and January New Bullards Bar storage figures and monthly reservoir releases (from USGS gages 11413510 and 11413520), the total inflow to New Bullards Bar between October 1, 2002 and January 31, 2003 is 387,302 acre-feet.
- 3) Using the B-120 information and the inflow to date, the forecasted February inflow is calculated as follows:

Inflow = C + C1*(Oct-Jan Inflow) + C2*(B120 Forecasted Flow at Smartville for February)

Forecasted February Inflow = -2,146 + 0.01424 (387,302) + 0.52533 (255,000) = 137,328 acre-feet

- 4) The forecasted March inflow is calculated as follows:

Inflow = C + C1*(Oct-Jan inflow) + C2*(B120 Forecasted Flow at Smartville for March)

Forecasted March Inflow = -3,221 + 0.02458 * (387,302) + 0.54787 * 300,000 = 170,660 acre-feet

- 5) The forecasted April-July inflow is calculated as follows:

Inflow = C + C1*(Oct-Jan Inflow) + C2*(B120 Forecasted Flow at Smartville for April-July) + C3*(Forecasted Flow at Goodyear's Bar for April-July)

Forecasted April-July Inflow = -30,416 + 0.01413 * (387,302) + 0.62473 * (900,000) + -0.24081 * (240,000) = 479,519 acre-feet

- 6) The August and September inflows are calculated as follows:

Inflow = C1*(Oct-Jan Inflow) + C2*(Forecasted flow at Smartville for August and September)

Forecasted August and September Inflow = 0.01593 * (387,302) + 0.64037 * (30,000) = 25,381 acre-feet

- 7) The North Yuba Index for 2003, as calculated for February 1, 2003, is:

Active NBB Storage + Actual Inflow (Oct – Jan) + forecasted Feb Inflow + forecasted Mar Inflow + forecasted Apr-Jul Inflow + forecasted Aug-Sept Inflow =

(532,088-234,000) + 387,302 + 137,328 + 170,660 + 479,519 + 25,381 = 1,498,278 acre-feet = **Index Number of 1498 which is a Wet/Above Normal year**

Example calculation of the North Yuba Index for May 1, 1999:

Excerpt from May 1999 DWR Bulletin -120:

**May 1, 1999 FORECASTS
APRIL-JULY UNIMPAIRED RUNOFF**

HYDROLOGIC REGION and Watershed	Unimpaired Runoff in 1,000 Acre-Feet					
	HISTORICAL			FORECAST		
	50 Yr Avg	Max of Record	Min of Record	Apr-Jul Forecasts	Pct of Avg	80 % Probability Range
Yuba River						
North Yuba below Goodyears Bar	286	647	51	330	115%	
Yuba River at Smartville Plus Deer Creek	1,029	2,424	200	1,200	117%	1,090-1,360

**May 1, 1999 FORECASTS (CONT'D)
WATER YEAR UNIMPAIRED RUNOFF**

Unimpaired Runoff in 1,000 Acre-Feet													
HISTORICAL			DISTRIBUTION								FORECAST		
50 Yr Avg	Max of Record	Min of Record	Oct Thru Jan*	Feb *	Mar *	Apr *	May	Jun	Jul	Aug & Sep	Water Year Forecasts	Pct of Avg	80% Probability Range
564	1,056	102											
2,337	4,926	369	720	520	350	305	510	310	75	55	2,845	122%	2,720-3,030

*Unimpaired runoff in prior months based on measured flows

From this information and historic information, the North Yuba Index can be calculated as follows:

- 1) The end-of-September 1998 New Bullards Bar Reservoir Storage (from USGS gage number 11413515) is 708,904 acre-feet.
- 2) From end-of-October, November, December, January, February, March and April New Bullards Bar storage and monthly reservoir releases (from USGS gages 11413510 and 11413520), the total inflow to New Bullards Bar between October 1, 1998 and April 30 1999 is 1,098,591 acre-feet.
- 3) Using the B-120 information and the inflow to date the forecasted April - July inflow is calculated as follows:

$$\text{Inflow} = C + C1 * (\text{Oct-April Inflow}) + C2 * (\text{B120 Forecasted Flow at Smartville for April-July}) + C3 * (\text{Forecasted Flow at Goodyear's Bar for April-July})$$

$$\text{Forecasted April-July Inflow} = -31,652 + 0.01033 * (1,098,591) + 0.61645 * (1,200,000) + -0.22353 * (55,000) = 707,142 \text{ acre-feet.}$$
- 4) The August and September inflows are calculated as follows:

$$\text{Inflow} = C1 * (\text{Oct-April Inflow}) + C2 * (\text{Forecasted flow at Smartville for August and September})$$

$$\text{Forecasted August and September Inflow} = 0.01298 * (1,098,591) + 0.50071 * (55,000) = 41,799 \text{ acre-feet}$$
- 5) The North Yuba Index for May 1, 1999, is calculated as follows:

Active NBB Storage + Actual Inflow (Oct – April) + forecasted Apr-Jul Inflow + forecasted Aug-Sept Inflow – Actual April Inflow =

$(708,904 - 234,000) + 1,098,591 + 707,142 + 41,799 - 182,647 = 2,139,789$ acre-feet = **Index Number of 2140 which is a Wet/Above Normal year**

EXHIBIT D

**[PROPOSED ORDER DESIGNATING REVISED DECISION 1644 AS A NON-
PRECEDENT DECISION]**

IT IS HEREBY ORDERED that, pursuant to Government Code section 11425.60, subdivision (a), the State Water Board designates Revised Decision 1644 as a non-precedent decision.

EXHIBIT E

[PROPOSED ORDER ON LONG-TERM TRANSFER PETITION]

IT IS HEREBY ORDERED that the petition of the Yuba County Water Agency (YCWA) for long-term transfer of water/water rights, filed on April 27, 2007, for temporary changes in the place of use, purpose of use, and points of diversion under YCWA's Permit 15026 (Application 5632) to facilitate the transfer of up to 200,000 of water per year during the period from January 1, 2008 through December 31, 2025, is approved subject to the provisions of this order.

All existing terms and conditions of Permit 15026 as modified by State Water Board Revised Decision 1644 (RD-1644) and this order remain in effect, except as temporarily amended by the following provisions:

1. The delivery of water for use by the Environmental Water Account, the Department of Water Resources (DWR) and the United States Bureau of Reclamation (USBR), as described in the Draft EIR/EIS and Final EIR/EIS for the Lower Yuba River Accord (copies of which have been filed as exhibits YCWA-1 and YCWA-2 in this proceeding), in amounts up to 200,000 acre-feet per year, is approved.
2. These deliveries of water are limited to the period from January 1, 2008 through December 31, 2025.
3. The place of use of Permit 15026 is temporarily changed as follows:

The authorized place of use is expanded to include the service areas of the State Water Project (as shown on maps 1878-1, 2, 3, & 4 on file with Application 5629) and the Central Valley Project (as shown on map 214-208-12581 on file with Application 5626).

4. The Clifton Court Forebay and the Tracy Pumping Plant are temporarily added as points of rediversion under Permit 15026. Rediversion of water at the Clifton Court Forebay and the Tracy Pumping Plant pursuant to this Order is subject to compliance by the operators with the objectives currently required of DWR and USBR set forth in Tables 1, 2, and 3 on pages 181 to 187 of State Water Board Revised Decision 1641 (D-1641), including compliance with the various plans required under D-1641 as prerequisites for the use of the Joint Points of Diversion by DWR and USBR. Rediversion of water at the Clifton Court Forebay and the Tracy Pumping Plant pursuant to this Order is also subject to compliance by the operators with the Delta Smelt Biological Opinion, all other applicable biological opinions, and any court orders applicable to these operations.
5. Municipal, salinity control, and water quality control are temporarily added as purposes of use under Permit 15026.
6. YCWA shall release water to the Lower Yuba River for the transfer in accordance with the flow schedules contained in the Lower Yuba River Fisheries Agreement on file with the State Water Board as exhibit YCWA-9 for this proceeding. Changes in flows due to the transfer shall be undertaken in accordance with the provisions contained in the Federal Energy Commission Order Modifying and Approving Amendment of License for the Yuba Project dated November 22, 2005, at pages 5-6.
7. During the period of the actual transfer of water approved under this order, YCWA shall comply with all applicable requirements ordered by Revised Decision 1644, as amended by this order.

8. YCWA shall comply with the Mitigation Measures 6-1, 6-2, 9-1, 9-2 and 15-1 in the Final EIR/EIS for the Lower Yuba River Accord, a copy of which was filed in this proceeding as exhibit YCWA-2.
9. Pursuant to section 5.2, subdivision (c) of the Yuba County Water Agency Act, the State Water Board finds that the water transfers that is approved by this order will not unreasonably affect the overall economy of Yuba County, the area from which the water is to be transferred.
10. Pursuant to Water Code sections 100 and 275 and the common law public trust doctrine, all rights and privileges under this order, including method of diversion, method of use, and quantity of water diverted, are subject to the continuing authority of the State Water 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 State Water Board also may be exercised by imposing specific requirements over and above those contained in this Order to minimize waste of water and to meet reasonable water requirements without unreasonable draft on the source.
11. This order does not authorize any act which results in the taking of a threatened or endangered species or any act which 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 temporary transfer, the permittee shall obtain authorization for an incidental take prior to commencing transfer of water. Permittee shall be responsible for meeting all requirements of the applicable Endangered Species Act

for the temporary transfer authorized under this order.

12. Pursuant to subsection 4.1.4 of the Lower Yuba River Fisheries Agreement (exhibit YCWA-9), the State Water Board specifically reserves jurisdiction to add, amend, revise, supplement, or delete terms and conditions in portions of this order that concern YCWA's long-term transfer petition, and the State Water Board will review these portions of this order before May 2016 or during the Clean Water Act section 401 process for the new long-term Federal Power Act license for the Yuba River Development Project, whichever is earlier, to determine whether, and if so, how, to exercise this jurisdiction, after notice to interested parties and an opportunity for a hearing.