

**CHAPTER 6.0  
NON-GOVERNMENTAL ORGANIZATION AND LOCAL SPECIAL INTEREST GROUP  
COMMENTS AND RESPONSES**

**6.1 FORMAT OF COMMENTS AND RESPONSES AND LIST OF COMMENTERS**

This chapter contains copies of the comment letters received from non-governmental organizations and local special interest groups, listed in Table 6.1-1. Each letter is followed by responses to the comments presented in that letter. Responses to comments are numbered individually in sequence, corresponding to the numbering assigned to comments in each comment letter.

**Table 6.1-1. Non-governmental organization and local special interest group comments received on the Oroville Facilities Relicensing Draft Environmental Impact Report.**

<b>Code</b>	<b>Agency</b>	<b>Name</b>
N0001	REMM Group	Robert M. Taylor
N0002	California Sportfishing Protection Alliance	Chris Shutes
N0003	State Water Contractors	Terry Erlewine
N0004	Joint Districts	David Steffenson
N0005	Pathfinder Quarter Horses	Vicki Hittson Weir and George Weir
N0006	Lake Oroville Bicyclist Organization	Lyle Wright
N0007	Friends of the River, Sierra Club, and South Yuba River Citizens League	Ronald M. Stork, Allan Eberhart, and Jason Rainey
N0008	Planning and Conservation League Foundation	Charlotte Hodde
N0009	Joint Districts	David Steffenson

**6.2 COMMENTS AND RESPONSES**

Comment letters and responses to comments from non-governmental organizations and local special interest groups can be found beginning on page 6-3.

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COMMENTS FROM THE REMM GROUP



**THE REMM GROUP**

505 South Villa Real, #201, Anaheim Hills, CA 92807  
(714) 974-1010 FAX: (714) 974-2191  
<http://www.remmgroup.com>

THE COUNSELORS  
OF REAL ESTATE



June 6, 2007

Mr. Henry M. Ramirez  
Manager, Oroville Facility Relicensing Program  
California Department of Water Resources  
1416 Ninth Street, Room 1155  
Sacramento, CA 95814

Ms. Barbara McDonnell  
Chief, Division of Environmental Services  
1416 Ninth Street, Room 1155  
Sacramento, CA 95814

**RE: Notice of Completion and Availability of the Draft Environmental Impact Report and Notice of Public Meeting for Relicensing of the Oroville Facilities, FERC Project No. 2100**

Dear Mr. Ramirez and Ms. McDonnell:

The purpose of this letter is to express our concern with the California Department of Water Resources oversight of the operation of the Oroville Recreational Facilities under a new FERC license and the Recreational Management Plan.

The Department of Water Resources has not been aggressive in the enforcement of the Concession Contract regarding the operation of the Bidwell Marina. The following are some of the problems that have been ignored by both the concessionaire and the State of California.

N0001-1

1. Failing mooring system due to age and overloading.
2. Failing condition of the docks, cleats, structure breaks, etc.
3. Limited days and hours to pump out.
4. Lack of notification when damage occurs.
5. Failure to accept responsibility for damage.
6. Poor condition of the covered slips
7. Extreme bug infestation of covered docks.
8. Unsafe power or extension cords on covered docks.
9. Unbelievable and unjustified rate increases.

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Page two  
June 6, 2007

The attachments are evidence of the seriousness of the problem and if no action is taken there could be extensive damage to personal property and risk of injury. In the interest of public health and safety the Department of Water Resources needs to be more proactive in the management of the facilities on Lake Oroville. The current situation is not acceptable. ] N0001-2

Respectfully submitted,

The REMM Group



Robert M. Taylor, CRE, CPM, CSM  
President

RMT/jc  
Enclosures

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## **RESPONSES TO COMMENTS FROM THE REMM GROUP**

### **Response N0001-1:**

DWR maintains close coordination with the California Department of Parks and Recreation (DPR) with respect to recreation operations at the Lake Oroville State Recreation Area (LOSRA). We have provided information in Chapter 2.0 of this FEIR to clarify the role of DPR in administration of concession contracts at the marinas.

### **Response N0001-2:**

As stated in the DEIR, Section 4.9.2, page 4.9-4, "Several federal, State and local agencies have responsibilities for providing public services in and around the project area." DWR coordinates closely with DPR on matters related to recreation at LOSRA, and regularly meets with DPR and other agencies to address contemporary issues including public health advisories, water safety, law enforcement, and facilities operations and maintenance. DWR's current role in the management of the Lake Oroville recreation facilities is described in Section 4.9.2.1, beginning on page 4.9-6, of the DEIR. The Proposed Project includes various articles within the Settlement Agreement (SA) and activities within the Recreation Management Plan (RMP) (see Appendix B of the DEIR) that are designed to ensure that appropriate management of the recreation facilities associated with the Oroville Facilities occurs for the life of the license.

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**COMMENTS FROM THE CALIFORNIA SPORTFISHING PROTECTION ALLIANCE**

**COMMENTS**  
Draft Environmental Impact Report  
Oroville Facilities Relicensing  
FERC Project No. 2100

Filed by:  
Chris Shutes  
Hydro Relicensing Consultant  
California Sportfishing  
Protection Alliance  
1608 Francisco St.  
Berkeley, CA 94703  
Phone (510) 841-6161  
e-mail: blancapaloma@msn.com  
July 19, 2007

Mr. Henry M. Ramirez  
Manager, Oroville Facilities Relicensing Program  
1416 Ninth St., Room 1155  
Sacramento, CA 95814

Dear Mr. Ramirez:

The California Sportfishing Protection Alliance (CSPA) offers the following comment on the Draft Environmental Impact Report for the Oroville Facilities Relicensing (released May, 2007).

One page E2 of the DEIR, it states:

“The following comparison demonstrates that potential changes in water temperatures under the Proposed Action result in beneficial impacts on the coldwater resources quantitatively evaluated, and that water temperatures would be further reduced, and thus beneficial uses further improved, with implementation of the Proposed Project. Because water temperatures that would occur in the lower Feather River with implementation of the Proposed Project are more protective of coldwater fisheries resources than the water temperatures provided by the Proposed Action, no detailed quantitative analysis utilizing model results is required for the various resource evaluations in this EIR. Specifically, because the Proposed Action was determined to have a beneficial effect on coldwater fisheries resources, and because CEQA does not required detailed analysis of beneficial project effects, no further quantitative evaluation of the colder water temperatures provided by implementation of the Proposed Project is required.”

The question, in plain language, is whether the assumed benefits of the Proposed Action or of the Proposed Project will actually ever come to pass, whether it can reasonably assumed that they will, and whether therefore DWR is required or is not required to

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N0002-1

quantify the alleged water temperature effects the Proposed Project is expected to have. A second question is whether any benefits that come to pass will endure. ] N0002-2

If, in the long term, water temperatures in the Feather River downstream of Lake Oroville cannot support viable populations of anadromous fish, then the benefits to fisheries resources of the Proposed Project compared to the Proposed Action do not exist. They will have been shown to be equally unprotective. Similarly, the Proposed Action will have been shown to be no more beneficial than present conditions; in fact, less. ] N0002-3

As we stated to FERC in our December 19, 2006 comments on the Draft EIS for the Oroville Facilities relicensing:

The operation of the Oroville Facilities is inextricably bound up with the operation of the State Water Project (SWP), for which Lake Oroville serves as the largest storage reservoir. The DEIS does not analyze how foreseeable operational changes, in quantity or timing, related to demands on the SWP for water delivery, can be expected to affect the viability of 1) the cold water pool in Lake Oroville, or 2) proposed temperature control measures for the reaches of the Feather River downstream of Lake Oroville.

The DEIS does not analyze how foreseeable operational changes to the SWP, in quantity or timing, related to climate change can be expected to affect the viability of 1) the cold water pool in Lake Oroville, or 2) proposed temperature control measures for the reaches of the Feather River downstream of Lake Oroville.

The same is equally true of the DEIR.

The modeling that supports the DEIR is based on the 2004 CVP/SWP Biological Assessment for OCAP, including D-1641 (see DEIR, Appendix E). Consultation for the OCAP Biological Opinion for salmon was reinitiated by NOAA Fisheries in July, 2006, and the Delta Smelt Biological Opinion for OCAP was ruled inadequate by Judge Wanger in May, 2007. Pelagic organisms, including the delta smelt, are in critical decline in the Delta. D-1641 is clearly not protecting Delta aquatic resources.

In sum, we have a DEIR and a Proposed Project that are not supported by current Biological Opinions for salmon and steelhead or for smelt. The previous OCAP BO for salmon and steelhead, on which the DEIR is in part based (see page 4-4.36), was, moreover, based in part on NOAA determination of ESUs in accordance with the Aalsea (2001) decision. This decision was recently called into question by a conflicting ruling in by Judge Coughenour in Spokane, who ruled in June, 2007 that hatchery stocks were not to be considered together with wild stocks in determining an ESU. We also have a modeling exercise that assumes that Delta conditions will remain status quo. If anything is certain in the Delta, it is that change is coming. ] N0002-4  
] N0002-5

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Of the “demands on the SWP for water delivery” that we cited above, one of the most prominent has become in the last few months water needed to avoid take of delta smelt. At a recent (June 19, 2007) workshop held in Sacramento by the State Water Resources Control Board on the Delta pelagic organism decline, a spokesperson from NOAA Fisheries explicitly warned that increased releases from storage to protect the delta smelt could have deleterious effects on salmon, in particular threatening the cold water pool in the major storage reservoirs, including Oroville.

Requirements of the SWP under emergency operating scenarios, such as those occasioned by single or multiple levee failures in the Delta, and foreseeable impacts to anadromous fisheries as a result of such emergencies, should also have been analyzed in the DEIR. They were not.

N0002-6

The DEIR claims: “The Proposed Project also includes a habitat expansion agreement that would fully mitigate the loss of habitat associated with the Oroville Facilities blocking of upstream fish migration” (Page 6.2-32). Oh, really? Would that also include the situation where the habitat expansion agreement became a habitat replacement agreement? Apparently it would, because the table of effects on aquatic resources tells us on page 5.4-14 that the HEA “fully mitigates for the loss of access to historic anadromous salmonid habitat due to the continued existence of the Oroville Facilities.”

N0002-7

The stupendously inadequate sum of \$15,000,000, and the, to put it charitably, limited goal of providing holding and spawning habitat for 2000 to 3000 spring-run salmon don’t begin to mitigate the loss of habitat for anadromous salmonids in the Feather River watershed, even if the reach downstream of Lake Oroville remains viable. FERC answered a similar comment we made by saying: “The Commission is not compelled under the FPA to mitigate for the original construction of the Oroville Facilities.” However, the DEIR boldly claims that it is doing just that. Effectively, it shuts the door on future fishways prescriptions by the responsible federal agencies.

N0002-8

We have no quarrel with DWR and PG&E agreeing to jointly mitigate loss of fish passage and habitat in the Feather River watershed. But they need to mitigate, not make a limited, pre-capped effort, and call it done forever.

N0002-9

The Oroville Settlement provides no certainty that the anadromous fish in the Feather River below Oroville Dam will be adequately protected. The DEIR needs to evaluate operational alternatives for the State Water Project that will allow protection of these anadromous fish should the facilities and operational measures proposed for the immediate project area prove insufficient.

N0002-10

The DEIR also needs to evaluate additional mitigation measures to reliably protect endangered salmon and steelhead in the event that the two in three chance of catastrophic levee failure in the Delta in the next fifty years, predicted by the PPIC Report, Envisioning Futures (2007) that has become the center of legislation mandating solutions in the Delta, comes to pass. If the chance of catastrophic levee failure is not reasonably foreseeable, DWR certainly has a lot of explaining to do regarding its push for changes in

N0002-11

Delta operations, and the push of its ultimate boss, the governor, for a peripheral canal. Why should plumbing solutions to assure water supply for the SWP merit the entire weight of the state government, while solutions that protect anadromous fish upstream don't even merit evaluation? N0002-12

The notion that a sufficient suite of alternatives is adequately presented in analyzing only the No Project, Proposed Action and Proposed Project alternatives does not pass muster. The Proposed Project differs from the Proposed Action only in that it adds the deficient Habitat Expansion Agreement and some tweaks. Additional alternative mitigation measures need to be disclosed and analyzed that will adequately protect, preserve and/or re-establish robust anadromous fisheries, not simply specify an amount of money to be directed at the problem. N0002-13

The National Marine Fisheries Service, in January 2007, discontinued consultation on the South Delta Improvement Project, in part because differing modeling inputs were used to evaluate the SDIP on the one hand and a second set to evaluate OCAP, and, more broadly, because SDIP could not appropriately be analyzed on a stand-alone basis. How is this different? N0002-14

The State Water Project is a whole series of connected and coordinated actions, each of which adds a layer of cumulative impacts to endangered species and to anadromous salmonids in general. These actions, including but certainly not limited to, proposed changes such as the SWP-CVP intertie, operation of two sets of export pumps, and coordination of the SWP with the CVP, are not disclosed and analyzed in cumulative form in this DEIR. They are, on the contrary, not even connected up. N0002-15

Thank you for the opportunity to comment on the DEIR for relicensing the Oroville Facilities.

Respectfully submitted,



Chris Shutes  
FERC Projects Director  
California Sportfishing Protection Alliance

## **RESPONSES TO COMMENTS FROM THE CALIFORNIA SPORTFISHING PROTECTION ALLIANCE**

### **Response N0002-1:**

Thank you for your interest in the Oroville Facilities Relicensing Project. While your comment does not raise issues or concerns appropriate to the environmental analysis in the DEIR and thus no further response is necessary, your comment is a part of the permanent record for this Project and has been forwarded to decision makers for consideration. However, it should be stated that DWR has already demonstrated compliance with the terms of the SA related to water temperature by completing the required Reconnaissance Study within the agreed-upon time frame. As stated in Section 3.3.2.1 of the DEIR, a feasibility study will be prepared within 3 years following license issuance to evaluate potential future facilities modifications to improve water temperature conditions in the Low Flow Channel (LFC) and the High Flow Channel (HFC) to further protect anadromous fish over the term of the new FERC license. Benefits to be derived from potential future project modifications will not be quantified until this next phase is completed. Project-specific environmental effects will be described and mitigated, if necessary, in a future CEQA document. The SA also includes adaptive management strategies designed to provide long-term flexibility to deal with future uncertainties and new information to ensure success. Another aspect of the SA to ensure success is the inclusion of numerous monitoring and reporting programs to quantify the positive effects expected from the Proposed Project.

### **Response N0002-2:**

As noted in Response to Comment N0002-1, the SA includes adaptive management strategies designed to provide long-term flexibility to deal with future uncertainties and new information to ensure success. Benefits of future project modifications to benefit cold water fish species will continue as a condition of the new FERC license for the duration of the new license.

### **Response N0002-3:**

The DEIR does not suggest that, in the long term, water temperatures in the Feather River downstream of Lake Oroville cannot support viable populations of anadromous fish. As described in the DEIR, Section 4.4.2, viable populations of anadromous fish currently exist in the lower Feather River. Several of the actions described in the Proposed Project and the FERC Staff Alternative are specifically designed to lower water temperatures in the lower Feather River. These actions combined with others (e.g., gravel supplementation, woody debris supplementation, and enhancement of existing and creation of new side channels) will enhance anadromous fish habitat and therefore increase the protection and future viability of salmonid fisheries in the lower Feather River.

**Response N0002-4:**

The modeling assumptions for the CEQA document are based on the current USFWS and NMFS Biological Opinions (BOs) for the Central Valley Project/State Water Project (CVP/SWP) Operations Criteria and Plan (OCAP). These BOs contain the best available information and analyses regarding CVP/SWP system-wide operations. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

**Response N0002-5:**

Modeling used during development of the DEIR utilizes future operational assumptions consistent with OCAP. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

**Response N0002-6:**

The commenter identifies an issue that is outside the scope of the EIR; therefore, no further response is necessary. However, it should be noted that no changes to the SWP emergency operating procedures are proposed and thus these are not analyzed in the DEIR.

**Response N0002-7:**

As described in the DEIR, Section 3.3.2.3, a subset of the Settlement parties including NMFS, USFWS, and DFG separately negotiated the Habitat Expansion Agreement (HEA) to address continued blockage of upstream passage by anadromous fish caused by several dams on the Feather River. The HEA provides spring-run Chinook salmon and steelhead access to additional spawning and rearing habitat. The HEA is not meant to replace existing anadromous salmonid habitat.

Additional specific actions in the Proposed Project as described in Section 3.3.2.3 of the DEIR also address many of the effects of continued blockage to upstream migration. For example, the Feather River Fish Hatchery will continue to be managed by DFG for the benefit of anadromous fish. The lack of spatial segregation of spring-run and fall-run Chinook salmon under Existing Conditions would be mitigated through implementation of the Fish Weir Program (SA Article A105). This program would also reduce redd superimposition by the fall-run on earlier spawning spring-run. Spawning and rearing habitat for anadromous species would be increased by gravel supplementation, large woody debris supplementation, and creation of new side channels (SA Articles A102, A104, and A103, respectively). Water temperature actions beneficial to cold water aquatic species and habitat are described in SA Article A108, Flow/Temperature to Support Anadromous Fish.

**Response N0002-8:**

Please see Response to Comment N0002-7 for a discussion of salmonid habitat enhancement anticipated through the HEA, which was developed in coordination with appropriate fishery agencies. As noted, the HEA addresses the ongoing blockage of upstream passage by anadromous fish, not original Project construction effects. DWR disagrees that the HEA “effectively shuts the door on future fishway prescriptions by the responsible federal agencies.” In fact, Article A109 of the SA, Reservation of Section 18 Authority, included in the Proposed Project and described on page 3.3-10 of the DEIR, clearly describes the mandatory conditioning agencies’ authority with respect to Section 18. Under the SA, authority is reserved for NMFS and the U.S. Department of the Interior to prescribe the construction, operation, and maintenance of fishways at the Oroville Facilities, Project No. 2100.

**Response N0002-9:**

Plans for the proposed actions that will further protect and enhance fish and their habitat were developed and approved in consultation with the fisheries regulatory agencies (i.e., DFG, USFWS, NMFS), and they will review and approve habitat expansion plans prior to implementation. See SA Appendix F for a description of the HEA. Monitoring of the effectiveness of the HEA using an adaptive management approach is incorporated into the SA so that results of efforts can be monitored and evaluated by the regulatory agencies. The HEA mitigates the effects of ongoing blockage of fish passage by the Oroville Facilities by providing access to new and/or enhanced fish habitat for the duration of the license.

**Response N0002-10:**

Please see Response to Comment N0002-1. The fisheries analysis contained in Section 5.4 of the DEIR concluded that the Proposed Project would be beneficial to the Feather River anadromous fishery. The SA was signed by agencies mandated to protect fisheries (i.e., DFG, NMFS, USFWS), which considered their statutory obligations for the Oroville Facilities Relicensing to be fully satisfied by the provisions contained within the SA. Additionally, operation of the SWP is outside the scope of the EIR. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

**Response N0002-11:**

The SA evaluated in the DEIR prescribes measures to protect anadromous salmonids in the Feather River. The SA was signed by agencies mandated to protect fisheries (i.e., DFG, NMFS, USFWS), which considered their statutory obligations for the Oroville Facilities Relicensing to be fully satisfied by the provisions contained within the SA. Evaluating mitigation measures to protect endangered salmon and steelhead from potential levee failure in the Delta, while an important issue, is outside the scope of this

EIR. Additionally, operation of the SWP is outside the scope of the EIR. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

**Response N0002-12:**

While your comment does not raise issues or concerns appropriate to the environmental analysis in the DEIR and thus no further response is necessary, your comment is a part of the permanent record for this Project and has been forwarded to decision makers for consideration.

**Response N0002-13:**

The range of alternatives in the DEIR is adequate and satisfies CEQA. The purpose of the requirement for an analysis of alternatives is to identify ways to avoid or substantially lessen the significant effects that a project may have on the environment while still achieving most of the basic project objectives. The range of alternatives is governed by the “rule of reason.” “An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation” (State CEQA Guidelines Section 15126.6[a]).

The Proposed Project, the FERC Staff Alternative, and the No Project Alternative evaluated in the DEIR satisfy CEQA because in the unique context of the FERC relicensing process, they offer a range of reasonable options with different environmental effects and benefits that fosters informed decision making and public participation. The Proposed Project is the end product of a multi-year collaborative relicensing process involving a large group of stakeholders, including federal, State, and local governments, resource agencies, federally and non-federally recognized tribes, nongovernmental organizations, local interest groups, and local residents. As discussed in Section 2.2 of the DEIR, DWR and the stakeholders considered an extensive array of alternatives for the Proposed Project, which were referred to during the relicensing process as protection, mitigation, and enhancement (PM&E) measures. Work Groups consisting of stakeholders evaluated all the proposed PM&E measures and recommended for further evaluation in DWR’s Preliminary Draft Environmental Assessment (PDEA) those PM&E measures that could reasonably be expected to produce beneficial results or address potential project effects. The process also considered FERC requirements for hydropower relicensing. The stakeholders then spent many months negotiating a comprehensive Settlement Agreement that eventually became the Proposed Project evaluated in the DEIR.

From the outset, the Proposed Project incorporates environmentally beneficial improvements that are specifically intended to avoid, offset, and mitigate anticipated adverse effects. As noted above, except as specified in the SA, the settling parties, including the regulatory agencies, believe that the measures contained in it satisfy their statutory, regulatory, or other legal requirements for the protection, mitigation, and enhancement of natural resources, water quality, recreation, and cultural and historical

resources affected by the Oroville Facilities. Chapter 5.0 of the DEIR analyzes the Proposed Project, and confirms that there would be no significant unavoidable environmental impacts.

The FERC Staff Alternative includes most of the measures in the Proposed Project, additional measures that in some instances were considered by FERC staff to be more protective of environmental resources than the Proposed Project, while not including measures outside FERC jurisdiction. This alternative represents a potentially feasible option for a new Oroville Facilities license in that FERC included it within its own DEIS and FEIS that it completed for the relicensing process.

Finally, the No-Project Alternative is part of a reasonable range of alternatives in the DEIR that provides for informed decision making because it evaluates continuing Oroville Facilities operations consistent with the terms of the existing license. The No-Project Alternative would therefore not include many of the environmentally beneficial actions incorporated in the Proposed Project and the FERC Staff Alternative.

In summary, in the context of the FERC relicensing process, the Proposed Project, the FERC Staff Alternative, and the No-Project Alternative provide a reasonable range of potentially feasible alternatives with different impacts and benefits sufficient to promote informed public participation and decision-making.

It should also be noted that costs of proposed actions were not utilized as selection criteria in the development of the project alternatives, nor was there consideration of a budget cap.

**Response N0002-14:**

Both the PDEA and CEQA DEIR modeling scenarios used consistent approaches in using models developed for the U.S. Bureau of Reclamation's Long-Term CVP/SWP OCAP, including the exclusion of the Environmental Water Account (EWA) from all alternatives studied. The local operations models used input results from appropriate OCAP model runs and can be considered subsets and therefore consistent with OCAP. The principal actions in the SA and analyzed in the DEIR are potential physical changes to the Oroville Facilities, environmental restoration actions in the lower Feather River, and recreational improvements in the Project area. None of the SA actions analyzed in the DEIR would affect net flow releases into the Feather River, and thus could be considered independent of OCAP. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

**Response N0002-15:**

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for information relevant to this comment.

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## COMMENTS FROM THE STATE WATER CONTRACTORS

August 8, 2007

Henry M. Ramirez, Manager  
Oroville Facilities Relicensing Program  
Department of Water Resources  
1416 Ninth Street, Room 1155  
Sacramento, CA 95814

**Re:** Comments of the State Water Contractors on Draft Environmental Impact Report for the Oroville Facilities, P-2100; SCH 2001102011

Dear Mr. Ramirez:

This letter sets forth the comments of the State Water Contractors (SWC) to the draft Environmental Impact Report (DEIR) that was issued by the Department of Water Resources (DWR) on May 21, 2007. Pursuant to the notice dated June 15, 2007, the deadline for comments was extended until August 20, 2007.

The SWC<sup>1</sup> was a full participant in the relicensing process for the Oroville Facilities. The SWC participated actively in all work groups, negotiations, and other proceedings. The SWC is participating actively in the decision making process before the Federal Energy Regulatory Commission (FERC) and commented on the draft and final Environmental Impact Statement prepared by FERC.

The Settlement Agreement (SA), that was negotiated by dozens of Parties interested in the Oroville Facilities, resulted in a comprehensive resolution of the issues appropriately raised in the FERC relicensing process. While some issues raised by a discreet number of stakeholders were not resolved by the SA, in our view, those were not appropriately raised within the context of a relicensing proceeding before FERC.

<sup>1</sup> The SWC members are: Alameda County Flood Control & Water Conservation District, Zone 7; Alameda County Water District; Antelope Valley-East Kern Water Agency; Casitas Municipal Water District on behalf of the Ventura County Flood Control District; Castaic Lake Water Agency; Central Coast Water Authority on behalf of the Santa Barbara County Flood Control & Water Conservation District; City of Yuba City; Coachella Valley Water District; County of Kings; Crestline-Lake Arrowhead Water Agency; Desert Water Agency; Dudley Ridge Water District; Empire-West Side Irrigation District; Kern County Water Agency; Littlerock Creek Irrigation District; The Metropolitan Water District of Southern California; Mojave Water Agency; Napa County Flood Control & Water Conservation District; Oak Flat Water District; Palmdale Water District; San Bernardino Valley Municipal Water District; San Gabriel Valley Municipal Water District; San Geronio Pass Water Agency; San Luis Obispo Co. Flood Control & Water Conservation District; Santa Clara Valley Water District; Solano County Water Agency; and Tulare Lake Basin Water Storage District.



### DIRECTORS

**Dan Masnada**  
President  
Castaic Lake Water Agency

**Thomas R. Hurlbutt**  
Vice President  
Tulare Lake Basin Water Storage District

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Antelope Valley-East Kern Water Agency

**David B. Okita**  
Solano County Water Agency

**Ray Stokes**  
Central Coast Water Authority

**Vince Wong**  
Alameda County FC & WCD Zone 7

**General Manager**  
Terry L. Erlewine

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Henry M. Ramirez  
August 8, 2007  
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The SA is analyzed as the preferred alternative in the DEIR. The SWC supports the SA as the preferred alternative. The SA addresses recreational needs in the area of the Oroville Facilities by enhancing swimming, boating, camping, fishing, hiking, trail riding, and other recreational activities. Among the specific actions to be taken are the construction of new campgrounds and the expansion of existing ones. Boat ramps will be extended to address low lake levels and will be expanded to accommodate increased visitors.

N0003-1

The SA also addresses a plethora of wildlife needs in an equally comprehensive fashion. The environmental provisions were crafted in close cooperation with the state and federal resource agencies as well as the State Water Resources Control Board and interested environmental groups. In addition, community interests provided additional input based upon their local knowledge and experience. The SA will enhance habitat for species protected under the Endangered Species Act as well as other species that occur in the project area. Of particular note is the enhanced habitat in the low flow and high flow sections of the Feather River for the endangered Central Valley spring run Chinook Salmon and Central Valley steelhead. Other actions will protect various other species protected either under the Endangered Species Act or the Migratory Bird Treaty Act.

N0003-2

Many of the actions to be taken under the SA will be the subject of future environmental review. Therefore, it is not possible to provide specific comments on those actions at this time. The SWC looks forward to being a full participant in those future environmental processes as well as in the development of the recreational and environmentally oriented projects.

N0003-3

The SWC is also pleased that the Supplemental Benefits Fund (SBF) is a prominent part of the SA. The SBF is an important component of the SA. While at this point it only provides dollars to the local community, the in excess of \$61 million to be provided will provide tremendous opportunities for recreational enhancements and economic development within the greater Oroville area. We are proud to have been and remain a participant in the SBF.

N0003-4

We believe that the DEIR adequately captured the known environmental effects of the proposed actions as contained in the SA. The DEIR comprehensively discusses the elements of the SA, the effected environment, and the specific criteria required by the California Environmental Quality Act (CEQA). The DEIR, together with the supporting documents set forth in the record contains a comprehensive review of all of the elements that comprise the SA and the environmental effects. We appreciate that DWR has made many of the documents available on its website for ease of access. This has greatly facilitated our review.

N0003-5

We look forward to the implementation of the Settlement Agreement at the earliest opportunity. Needless delays will only serve to frustrate the good intentions of DWR, the SWC, and all parties to the SA in making the terms of the settlement agreement a reality for the benefit of the natural and recreational resources that will be

N0003-6

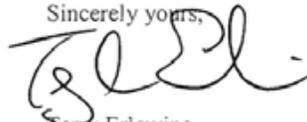
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enhanced by implementation of the SA. We look forward to the beneficial effects of the Settlement Agreement on the Oroville region and Butte County in general.

] N0003-6  
cont

The SWC appreciates this opportunity to provide its comments to DWR.

Sincerely yours,



Terry Erlewine  
General Manager

cc: State Water Contractor Member Agencies

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## **RESPONSES TO COMMENTS FROM THE STATE WATER CONTRACTORS**

### **Response N0003-1:**

The commenter's description of Proposed Project benefits and support for the Project is noted. No further response is necessary.

### **Response N0003-2:**

The commenter's description of Proposed Project benefits and support for the Project is noted. No further response is necessary.

### **Response N0003-3:**

The commenter's description of future environmental review for some actions contained within the Proposed Project is correct. No further response is necessary.

### **Response N0003-4:**

The commenter's description of Proposed Project benefits and support for the Project is noted. No further response is necessary.

### **Response N0003-5:**

The commenter's description of Proposed Project benefits and support for the Project is noted. No further response is necessary.

### **Response N0003-6:**

The commenter's description of Proposed Project benefits and support for the Project is noted. No further response is necessary.

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**COMMENTS FROM THE JOINT WATER DISTRICTS**

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**MINASIAN, SPRUANCE,  
MEITH, SOARES &  
SEXTON, LLP**

ATTORNEYS AT LAW  
A Partnership including Professional Corporations

1681 BIRD STREET  
P.O. BOX 1679  
OROVILLE, CALIFORNIA 95965-1679

PAUL R. MINASIAN, INC.  
JEFFREY A. MEITH  
M. ANTHONY SOARES  
DAVID J. STEFFENSON  
DUSTIN C. COOPER

WILLIAM H. SPRUANCE,  
Of Counsel

MICHAEL V. SEXTON,  
Of Counsel

TELEPHONE:  
(530) 533-2885

FACSIMILE:  
(530) 533-0197

August 20, 2007

FAX TRANSMISSION FROM THE OFFICE OF DAVID J. STEFFENSON

Number of Pages (including this page): 16

TO: Henry "Rick" Ramirez  
OF: Department of Water Resources

FAX NO: (916) 654-8748

SUBJECT: *Project No. 2100 - Oroville Facilities*

DOCUMENTS: *Comments on Draft EIR*

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- For your information/files.
- Please review and call with any revisions.
- Just to keep you informed of the progress of this matter.
- For your review.
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**MINASIAN, SPRUANCE,  
MEITH, SOARES &  
SEXTON, LLP**

ATTORNEYS AT LAW  
A Partnership including Professional Corporations

1681 BIRD STREET  
P.O. BOX 1679  
OROVILLE, CALIFORNIA 95665-1679

Writer's email: dsteffenson@minasianlaw.com

PAUL R. MINASIAN, INC.  
JEFFREY A. MEITH  
M. ANTHONY SOARES  
DAVID J. STEFFENSON  
DUSTIN C. COOPER

WILLIAM H. SPRUANCE,  
Of Counsel

MICHAEL V. SEXTON,  
Of Counsel

TELEPHONE:  
(530) 533-2685

FACSIMILE:  
(530) 533-0197

August 20, 2007

Via Facsimile and U.S. Mail  
(916) 654-8748

Henry "Rick" Ramirez  
Program Manager, Oroville Facilities Relicensing  
California Department of Water Resources  
P.O. Box 942836  
Sacramento, CA 94236-0001

Re: Project No. 2100 - Oroville Facilities  
Comments on Draft EIR

Dear Mr. Ramirez:

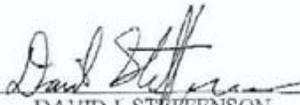
As discussed with you on the phone this morning, please find included in this facsimile the Joint Districts' Comments on the Department of Water Resources Draft Environmental Report for its re-licensing of the Oroville Facilities. A hard copy will follow in the mail.

To reiterate, in part, our conversation, we file these comments to protect our legal position, although the Districts remain committed to the negotiation process and are resolved to follow through to an amicable settlement.

Please contact Jeff Meith or myself if you have any questions or concerns.

Sincerely,

MINASIAN, SPRUANCE, MEITH,  
SOARES & SEXTON, LLP

By:   
DAVID J. STEFFENSON

DCC/tw  
enclosure

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CALIFORNIA DEPARTMENT OF WATER RESOURCES  
PROJECT NO. 2100 – OROVILLE FACILITIES

COMMENTS OF THE JOINT DISTRICTS ON THE DEPARTMENT OF WATER  
RESOURCES DRAFT ENVIRONMENTAL IMPACT REPORT

INTRODUCTION

On May 21, 2007, the California Department of Water Resources ("DWR") issued its Notice of Completion and Availability of the Draft Environmental Impact Report ("DEIR") and Notice of Public Meeting for Relicensing of the Oroville Facilities, FERC Project No. 2100 ("Project"). A District representative attended and commented on the DEIR deficiencies at the DWR public meeting held to discuss the DEIR on June 21, 2007, at Kelly Ridge, Oroville, CA. Western Canal Water District, Richvale Irrigation District, Butte Water District, Biggs-West Gridley Water District, and Sutter-Extension Water District (collectively, "Districts") file these comments on the deficiencies of the DEIR's treatment of the adverse environmental impact caused by the excessively cold water provided by the Project on the 125,000 acres of rice, approximately, that receive irrigation water from the Thermalito Afterbay.

N0004-1

1. BACKGROUND

The original Oroville Dam Project was intended, in part, to provide temperature control on the Feather River for the benefit of all beneficial uses, including fisheries and

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agriculture.<sup>1</sup> From the outset of the Project, the Department recognized the intent to provide beneficial temperatures for rice production.<sup>2</sup> Prior to the current re-licensing proceeding, Department staff acknowledged the intent to deliver suitable water for rice growth.<sup>3</sup> The Project was not intended to artificially reduce water temperatures significantly below pre-project conditions. Quite the contrary, multilevel shutters installed in the intakes to the Hyatt Powerhouse, coupled with the warming capacity of the Thermalito Afterbay, were intended to provide water of a temperature compatible with pre project conditions.

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In contrast to the original intent, Project water delivered has become consistently and steadily colder since the Districts began taking agricultural diversions from the Thermalito Afterbay.<sup>4</sup> The past, and presently continuing, delivery of exceedingly cold-

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<sup>1</sup> See attachment "C" to Joint Districts Intervention in the FERC P-2100 proceedings, "Temperature Control of Water From Oroville Reservoir" published by DWR in 1960's attached to letter from Joint Districts to DWR dated March 21, 2000:

"The fields of the Feather River Service Area will be irrigated by releases from Oroville Reservoir. Rice production is important to the economy here, and irrigation water temperature is a critical factor in rice growth.

Cold water released from the depths of Oroville reservoir would harm the rice crop. Even without Oroville Dam, water temperatures of the Feather River are not ideal for rice growth. Their average May through August range has been 52° to 72° F. The University of California has demonstrated that rice plants thrive best when the temperature of irrigating waters ranges from 59° to 77°F. Even within this critical range, temperature fluctuation drastically affects the harvest.

With a proper outlet structure at Oroville Dam, the temperature of releases can be controlled so as to serve the agricultural interest of the area. (pp.11-12.)

<sup>2</sup> See *id.* at pp.14 "Temperature Range Chart" (graphing the ideal temperature range for the production of rice.)

<sup>3</sup> See Letter from Jim Spence, Project Operations Planning Branch, State Water Project Control Office, to Gary Stern, National Marine Fisheries Service, dated September 14, 1999, p.1 ("Water temperature was an important factor in the design and construction of the Thermalito Afterbay facilities.")

<sup>4</sup> See Chart of "Average Monthly Feather River Outlet Water Temperature" from January 1980-January 2000 attached to Letter from Districts to Director Thomas M. Hannigan dated February 1, 2000, and included with Attachment "A" to Districts' Motion to Intervene in the FERC P-2100 ("Intervention") proceedings, see also Intervention Attachment "J", "Measuring the Effect of Low Water Temperature on Blanking and Grain Yield", Muters, R.G., Eckert, J.W., Roel, A. & Plant, R.E., Chart of Average July water temperatures of Feather River at Oroville for years 1963-1967, 1970-1975 and 1996-2001 (indicating increasing drop in average minimum temperatures).

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water during the irrigation season has inflicted serious damage to rice crops grown in the Feather River Service area.<sup>5</sup>

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The Districts have taken every opportunity, both within and outside of the relicensing proceeding, to inform DWR of the damages inflicted and to seek mitigation.<sup>6</sup>

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The State Water Resources Control Board recognizes the impact of cold water on rice and the need to mitigate for those impacts.<sup>7</sup> However, in its official filings thus far in the relicensing proceeding, DWR insists that the Districts have not proven damages caused by cold-water.<sup>8</sup> In its FERC filings, DWR specifically indicated that results of a joint study

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between itself and the Districts, in collaboration with the University of California

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Agricultural Extension Program,<sup>9</sup> were "not yet complete" and that it was "premature to conclude that the study confirms earlier analysis cited by the Districts."<sup>10</sup>

<sup>5</sup> See, *inter alia*, Letters from individual farmers attached as Examples #1-6 of Attachment "A" to Intervention.

<sup>6</sup> See, *in general*, FERC Intervention; see also, specifically, Letter to Thomas M. Hannigan from Districts Re: DWR Obligations to Deliver Water from Thermalito Afterbay at Temperatures Suitable for Agriculture, dated February 1, 2000 (attachment "A" to Intervention); Letter from Districts to Thomas M. Hannigan Re: DWR Obligations to Deliver Water from Thermalito Afterbay at Temperatures Suitable for Agriculture, dated March 21, 2000 (attachment "C" to Intervention); Letter from Jeff Meuth to Rick Ramirez Re: Oroville Project Relicensing, dated November 17, 2000 (attachment "E" to Intervention); Written Comments of Districts at submitted at Public Scoping Meeting October 29, 2001 (attachment "F" to Intervention); Letter from Ted Trimble, manager Western Canal Water District to Michael Spear, Interim Director of DWR, Re: Thermalito Afterbay Water Temperature, dated June 2003 (attachment "H" to Intervention); Letter from Districts to Ralph M. Torres Re: DWR Initial Settlement Agreement, dated May 17, 2004 (attachment "L" to Intervention).

<sup>7</sup> See Letter from Russ J. Kanz, Staff Environmental Scientist, to Magalie R. Salas, dated December 19, 2006 ("After construction of Oroville Dam, water temperatures became less suitable for rice cultivation during the early irrigation season and typically have not met the threshold required for rice production during the summer. Resolution of this issue could require physical changes at the Thermalito Afterbay to control temperature. The impacts and benefits of alternatives to improve water temperature for rice production should be evaluated and included in the final EIS.")

<sup>8</sup> See, *in general*, Response of the California Department of Water Resources to Recommendations, Terms and Conditions, Prescriptions, and Settlement Comments, in the FERC P-2100 proceeding, pp.75-86 & attachment "C" ("Response").

<sup>9</sup> Referred to as the "2005 Cold Water Study".

<sup>10</sup> See *Id.* at p.84.

The results of the 2005 Cold Water Study are now in.<sup>11</sup> The findings demonstrate that cold water is having a substantial adverse impact on average rice yields in affected fields. DWR should officially acknowledge the impact of cold-water agricultural deliveries on rice production. Both the Districts and DWR have negotiated diligently to resolve the cold-water dispute, and are close to reaching a resolution. However, as filed, the DEIR fails to acknowledge that impact and to provide appropriate mitigation.

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II. THE PROPOSED PROJECT ALTERNATIVES WILL LIKELY CAUSE SIGNIFICANT IMPACTS TO RICE YIELDS

The DEIR determines that, in the initial new license operating period, reductions in water temperature would likely result in a less than 2° F reduction in water temperature at the agricultural diversions as compared to the Existing Condition.<sup>12</sup> From that determination, it concludes that temperature reduction "would not be expected to substantially decrease rice yield attributable to coldwater exposure, relative to Existing Conditions."<sup>13</sup> This analysis is deficient for two reasons: (1) it fails to address the cumulative impacts of previous projects as required CEQA Guidelines §15064(h)(1); and (2) relatively minor changes in water temperature can have correspondingly large effects on rice yields.

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First, CEQA Guidelines Section 15064(h)(1) instructs DWR to consider cumulative impacts if the "incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the

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<sup>11</sup> See Spatial Distribution of Water Temperature Affects on Rice Productivity, Final Report prepared for the California Department of Water Resources, Mutters, R.G., April 20, 2007, p.2 ("2005 Study Final Report") ("Prolonged exposure to cold water reduced the yield of rice at all locations. The yield loss, averaged across locations was 14% based on experimental data.")

<sup>12</sup> See DEIR, p.5.2-15.

<sup>13</sup> DEIR, p.5.2-18.

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effects of probable future projects."<sup>14</sup> DWR has previously admitted that studies referenced by the Districts in their Comments on the FERC DEIS demonstrate that "incremental duration of exposure or an incremental decrease in water temperatures should result in an incremental loss of [rice] yield."<sup>15</sup> In its cumulative impact analysis, DWR similarly admits that "[a]dditional reductions in water temperatures compared to historical or Existing Conditions with implementation of the Proposed Project would result in a small incremental reduction in water temperature at the agricultural diversions in Thermalito Afterbay. These reductions ... would likely result in an incremental additional yield loss in rice production ..."<sup>16</sup>

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As shown in above citations, the temperature of water delivered from Oroville Reservoir has consistently dropped over time. The DEIR should analyze estimated incremental decrease in water temperature, and the corresponding yield loss, to determine the cumulative impact of the original Oroville Dam and the current proposed Project alternatives.

Second, minor decreases in agricultural diversion temperatures can have correspondingly large impacts on rice yields. DWR has previously contested this claim by stating that studies cited by the Districts in their comments on the FERC DEIS "do not address the actual impacts of cold water to the Districts, but rather focus on developing a functional relationship of water temperature exposure to yield loss at a specific location within a single rice field..."<sup>17</sup> As discussed above, DWR and the Districts have recently received the results of the 2005 study which shows an average of 14% yield loss for the

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<sup>14</sup> 14 CCR §15064(h)(1).

<sup>15</sup> Response of DWR to Comments on the Draft EIS at 18.

<sup>16</sup> DEIR, p.6.2-21.

<sup>17</sup> *Id.*

experimental fields.<sup>18</sup> Published studies cited in the 2005 Study Final Report show that that rice requires a minimum water temperature of 55°F to sustain growth, that the physiologically critical water temperature for the germination and early seedling growth is around 63°F, and that shoot growth is retarded below 61°F rice is sensitive to temperature thresholds.<sup>19</sup> And, DWR has itself previously acknowledged the sensitivity of rice to low water temperatures.<sup>20</sup> The DEIR's current analysis ignores the potentially significant impact of relatively minor temperature drops on rice, by not analyzing the impacts in light of damage inducing temperature thresholds indicated by published rice studies.

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Furthermore, the DEIR states that, at the Robinson Riffle, "[t]he Table 1 target under the Proposed Project for May 1 through May 15 increases from 56°F to 63°F, while the target for the remainder of May is the same as for June (i.e., 63°F)."<sup>21</sup> Because water temperatures at Robinson Riffle were more than 2°F cooler than the current water temperature requirements during approximately 75% of conditions that occurred from May through July in 2001-2006, the DEIR concludes that agricultural diversion temperatures for the Thermalito Afterbay during May through July will experience a probable reduction

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<sup>18</sup> See 2005 Study Final Report, p.2.

<sup>19</sup> See 2005 Final Report, p.10 (citing studies Matsuo (1957) (Rice culture in Japan, Ministry of Agriculture and Forestry, Japanese Govt. Tokyo, 128pp.), Ogiwara and Terashima (2001) (A Varietal Difference in Coleoptile Growth is Correlated with Seeding Establishment of Direct Seeded Rice in Submerged Field under Low-Temperature Conditions, *Plant Production Science* 4 (3): 166-172.), and Heath and Ounsted (1965) (Some Effects of Water Temperature on the Growth and Development of Rice Seedlings. *Agronomy Journal* 373-376).)

<sup>20</sup> See "Comments on Draft Biological Opinion on Effects of Operation of the Federal Central Valley Project and the California State Water Project From December 1, 1999 through March 31, 2000 on Central Valley Steelhead and Central Valley Spring-run Chinook Salmon", Ltr to NMFS Assistant Regional Administrator Ms. James Lecky from Larry K. Gage, Chief SWP Operations Control Office, February 22, 2000, attached comments, p. 1, "This section of the Biological Opinion [regarding Feather River Instream Flow and Temperature Requirements] should also include the following references to contractual obligations: DWR has with local irrigation districts related to water", in part, "Allowing for proper germination and development of their crops requires water diverted from the river or Thermalito Afterbay be no colder than 64°F April through May..."

<sup>21</sup> DEIR, p.5.2-14.

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of less than 2°F.<sup>22</sup> Based on that estimated 2°F reduction, the DEIR concludes that no substantial decrease in rice yields is expected.<sup>23</sup>

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In contrast, the 2005 Study Final Report concluded that the total number of hours of water temperature below 65° F from planting to panicle initiation "was the best and consistently statistically significant single predictor of yield loss under all circumstances whether the field data were analyzed individually or pooled in various combinations."<sup>24</sup> Thus, yield loss is both a function of critical temperature thresholds and the total number of hours of cold-water exposure. The DEIR's stated temperature goal is 63°F at the Robinson Riffle, with a potential additional 2°F drop for agricultural diversions. Despite that stated goal, the DEIR's analysis fails to address the span of time which future rice crops are estimated to be exposed to water temperatures below 65°F under the proposed Project alternatives.

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The DEIR analysis should address both the potential for incremental small changes in agricultural diversion temperatures to impact rice yields due to cumulative impacts caused by the original Project, and the magnitude of the impact as influenced by critical temperature thresholds and the amount of time rice is exposed to cold water.

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III. THE DEIR DOES NOT ADEQUATELY DEFINE THE SIGNIFICANT IMPACT THRESHOLDS TO THE CULTIVATION OF RICE AND THE DAMAGE DONE TO RICE YIELDS

The DEIR minimizes the damage done to the cultivation of rice within the Districts by redefining significant impact to agricultural resources under the proposed Project re-

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<sup>22</sup> See DEIR, p.5.2-13 & 14.  
<sup>23</sup> See DEIR, p.5.2-18.  
<sup>24</sup> 2005 Study Final Report, p.75.

licensing terms in a narrow fashion that hinders the DEIR's purpose as a full disclosure document. The DEIR defines as significant only those impacts which do any of the following:

- (1) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use; or
- (2) Conflict with existing zoning for agricultural use, or a Williamson Act contract; or
- (3) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.<sup>25</sup>

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Using this analysis, DWR is able to issue a draft document that, in effect, ignores damages to the Districts by suggesting that none of its triggering levels of significance are met.

The DEIR correctly acknowledges the concern expressed by the Districts "regarding the suitability of irrigation water temperatures at the Thermalito Afterbay agricultural diversions and the potential for exposure to cold water during critical periods to reduce rice yields..."<sup>26</sup> It determines that such relatively small changes in temperature magnitude "would not be expected to substantially increase rice yield loss attributable to cold water exposure, relative to Existing Conditions."<sup>27</sup> The DEIR then applies the above three-part test to evaluate the potential for the impacts of the project to result in conversion of farmland to non-agricultural uses.<sup>28</sup> For both the Proposed Project and the FERC Staff Alternative, the DEIR concludes, "rice yield changes would not be substantial enough to result in conversion of farmland to non-agricultural use. Therefore, no impact would occur."<sup>29</sup>

<sup>25</sup> DEIR, Environmental Impacts, p.5.13-3.

<sup>26</sup> *Id.*

<sup>27</sup> DEIR, Environmental Impacts, section 5.13-6.

<sup>28</sup> *Id.*

<sup>29</sup> DEIR, p.5.13-8.

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The DEIR's truncated analysis of the impact of cold water diversions on rice yields (limited to conversion of farmland) is inadequate, for several reasons. First, the conversion of farmland to non-agricultural uses is not an exclusive test to determine significant impacts to agricultural resources. Indeed, since it ignores significant damage caused by cold-water, the test is clearly misapplied to this circumstance. Second, the DEIR analysis must evaluate economic and social effects on the impact to rice yields. Finally, the DEIR itself recognizes that differences between Feather River source temperatures and irrigation water diversion temperatures can be a significant impact.

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The DEIR's measure of significant impact --the conversion of agricultural land to non-agricultural uses-- is inadequate. The three-part test appears to be lifted, verbatim, from the suggested Initial Study form questions located in the CEQA Guidelines Appendix G, and is adopted by DWR as if the CEQA Appendix G checklist constitutes the only possible method of determining whether a significant impact to farmland exists. In contrast, Guidelines Appendix G clearly states that it is "only a suggested form, and lead agencies are free to use different formats; however, lead agencies *should normally* address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected." (emphasis added). Consistent with California State policy,<sup>30</sup> Appendix G clearly addresses significant impacts which influence the direct conversion of farmland to other uses. However, Appendix G Guidelines are neither mandatory nor exclusive tests of significant impacts.<sup>31</sup>

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A significant effect on the environment is "any substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the

<sup>30</sup> See, e.g., the Williamson Act (Cal. Gov. Code §§51200 et seq.)

<sup>31</sup> See e.g. *Ocean View Estates Homeowners Assn., Inc., v. Montecito Water Dist.* (2004) 116 Cal. App. 4<sup>th</sup> 396, 401 ("Appendix G ... recommends that the lead agency consider" certain questions" (emphasis added).)

project, including *land, air, water, minerals, flora fauna, ambient noise, and objects of historic or aesthetic significance.*<sup>32</sup> The significance of an environmental effect requires evaluation of “direct physical changes in the environment [that] may be caused by the project and reasonably foreseeable indirect physical changes in the environment [that] may be caused by the project.”<sup>33</sup> And, importantly, the significance of an impact depends on the environmental setting.<sup>34</sup> California courts have recognized the need for EIR’s for cases in which potentially adverse effects on agricultural land production, not directly related to the conversion of farmland to non-agricultural uses, must be analyzed within an EIR.<sup>35</sup> Thus, the DEIR must analyze, and disclose, whether the impact of cold water on rice yields may constitute a significant environmental impact regardless of whether such impact would cause the conversion of farmland to non-agricultural uses.

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In addition, the DEIR must analyze the environmental impact on agricultural lands caused by the socioeconomic impact of reduced rice yields. The “[e]conomic or social effects of a project shall not be treated as significant effects on the environment.”<sup>36</sup> However, “economic and social changes may be used to determine that a physical change shall be regarded as a significant effect on the environment [...] Alternatively, economic and social effects of a physical change may be used to determine that the physical change

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<sup>32</sup> 14 California Code of Regulations (“CCR”) §15382.

<sup>33</sup> 14 CCR §15064(d).

<sup>34</sup> See 14 CCR §15064(b) (“An ironclad definition of significant is not always possible because the significance of an activity may vary with the setting. For example, an activity which may not be significant in an urban area may be significant in a rural area.”) [This caution rings particularly true in the rural agricultural setting of the rice fields at issue within the Districts boundaries. There are no currently feasible potential uses for those lands aside from agriculture, and DWR’s test of whether the impact will lead to conversion of those lands to non-agricultural uses rings hollow in such a setting.]

<sup>35</sup> See, e.g., *County Sanitation District No. 2 v. County of Kern*, 127 Cal. App. 4<sup>th</sup> 1544 (2005); *Magan v. County of Kings*, 105 Cal. App. 4<sup>th</sup> 468 (2002).

<sup>36</sup> 14 CCR §15131(a).

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is a significant effect on the environment.”<sup>37</sup> As a result, the DEIR must analyze the magnitude of the environmental impact, in light of the economic and social effect of reduced rice yields on local farmers.

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Finally, the DEIR acknowledges that a significant impact occurs if a Project alternative would “[v]iolate any water quality standards or waste discharge requirements.”<sup>38</sup> The Basin Plan prepared every three years by the Central Valley Regional Water Quality Control Board (“RWQCB”) describes “officially designated beneficial uses for surface water and the enforceable water quality objectives necessary to protect those beneficial uses.”<sup>39</sup> Included in the beneficial uses identified by the Central Valley RWQCB in its *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, Fourth Edition, Sept. 1998, as amended, are “municipal and domestic supply, irrigation, power, contact recreation, non-contact recreation, warmwater habitat, coldwater habitat, warmwater spawning habitat, coldwater spawning habitat, and wildlife habitat (emphasis added)”<sup>40</sup> The Basin Plan states that the natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated ... that such alteration in temperature does not adversely affect beneficial uses.<sup>41</sup> Thus, regardless of whether agricultural land is converted to non-agricultural uses, a significant impact occurs where the Project alters the natural waters of the Feather River and in so doing adversely affects irrigation.

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<sup>37</sup> 14 CCR §15064(e).

<sup>38</sup> DEIR, Environmental Impacts, p.5.2-10.

<sup>39</sup> DEIR, Environmental Impacts, p.5.2-7.

<sup>40</sup> DEIR, Environmental Impacts, p.5.2-9.

<sup>41</sup> DEIR, p.5.2-9 “Basin Plan Beneficial Uses”; see also California Regional Water Quality Control Board, Central Valley Region, Fourth Edition of the Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins, 15 September 1998, p.III-8 (“The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses.”)

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The DEIR admits that "[t]he exact nature of potential agricultural impacts associated with the future potential facilities modifications are currently unknown, but some potential impacts could be anticipated based upon the current descriptions of the potential facilities modifications."<sup>42</sup> The DEIR then concludes that potential temperature reductions of up to 2°F would not substantially decrease rice yield attributable to coldwater exposure, nor be expected to result in any conversion of agricultural land.<sup>43</sup>

The DEIR misses the mark on what constitutes a significant impact. Under the Basin Plan, the significance of the impact must be evaluated in light of the difference between the proposed diversion temperatures and the natural receiving water of the Feather River. Conversion of agricultural land is not an element of this test. The State Water Resources Control Board recognized this distinction, when it admonished FERC that, "[a]fter construction of Oroville Dam, water temperatures became less suitable for rice cultivation during the early irrigation season ... Resolution of this issue could require physical changes at the Thermalito Afterbay to control temperature. The impacts and benefits of alternatives to improve water temperature for rice production should be evaluated and included in the final EIS."<sup>44</sup> It is the impact of the Project on natural receiving waters which must be shown to not impact the beneficial use of that water for the cultivation of rice.

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#### IV. CONCLUSION

The DEIR does not serve as a full disclosure document of the environmental impacts of cold-water on rice production. The DEIR uses only the narrow test of whether

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<sup>42</sup> DEIR, p.5.2.-16.

<sup>43</sup> DEIR, p.5.2-18.

<sup>44</sup> See Letter from Russ J. Kanz, Staff Environmental Scientist, to Magalie R. Salas, dated December 19, 2006, *supra*.

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the Project's impacts will result in conversion of agricultural land to non-agricultural uses. That test finds significant impacts only if there is some conversion of land to non-agricultural uses. It also does not account for cumulative impacts of past Project operations or potentially significant impacts in light of social and economic considerations of relatively small yield losses. Furthermore, it does not acknowledge that significant impacts are caused by changes in water temperature which adversely affect irrigated crops in violation of the Basin Plan, as determined by the Regional Water Quality Control Board.

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DWR has previously recognized that certain water temperature thresholds can affect rice growth. That acknowledgment is contrary to the DEIR's conclusion that small temperature changes cannot result in relatively large yield losses. The DEIR's conclusion is contrary to published studies. Additionally, the DEIR does not address the temporal relationship between yield loss and cold water.

N0004-34

N0004-35

DWR previously stated that it would negotiate a reasonable solution if the 2005 study showed cold-water impacts on rice yields. The study showed adverse impacts to local farmers' rice yields. During the 2005 study (and now that the results are known), the Districts and DWR have negotiated diligently toward mitigation of the impact. The parties have signed a Term Sheet, formalizing their intent to reach a negotiated settlement of this issue.<sup>45</sup> The Term Sheet specifies a method of determining the cold-water damage caused to rice yields and to calculate appropriate financial mitigation.<sup>46</sup> The Term Sheet, which was executed after issuance of the DEIR, addresses the significance of the impact of cold-water deliveries from the Thermalito Afterbay. The Districts believe that a settlement agreement consistent with the intent of the Term Sheet would provide appropriate

N0004-36

<sup>45</sup> See Term Sheet attached as Exhibit "A" to this Comment Letter and signed by both representatives of DWR and the Districts.

<sup>46</sup> See Term Sheet.

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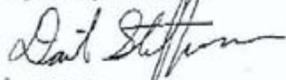
mitigation for the damages caused by cold-water agricultural diversions. The Districts believe such a settlement would be the most beneficial solution for both parties and would negate the need for other potential mitigation measures, such as physical alterations to the Oroville Facilities to warm agricultural diversions.

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The Districts ask DWR to analyze and address the above concerns in the Final EIR and to continue to work with the Districts to reach an amicable settlement.

N0004-37

Respectfully submitted,



David Steffenson, Esq.  
Jeffrey Meith, Esq.  
Minasian, Spruance, Meith, Soares & Sexton LLP  
1681 Bird Street  
P.O. Box 1679  
Oroville, California 95965-1679  
Phone: (530) 533-2885  
Facsimile: (530) 533-0197  
Email: [dsteffenson@minasianlaw.com](mailto:dsteffenson@minasianlaw.com)

Counsel for Western Canal Water District, Richvale  
Irrigation District, Butte Water District, Biggs-West  
Gridley Water District, and Sutter Extension Water  
District

DATED: August 20, 2007.

## RESPONSES TO COMMENTS FROM THE JOINT WATER DISTRICTS

### **Prefatory Note:**

DWR understands that Comments N0004-1 through N0004-11, which are contained in the section of the comments titled “Background,” are intended to provide background information for the comments that follow. It should be noted that Section 15125 of the State CEQA Guidelines describe the physical environmental conditions as they exist at the time the Notice of Preparation (NOP) is published as normally constituting the baseline physical conditions by which a lead agency determines whether an impact is significant. As described in Chapter 4.0, Environmental Setting, of the DEIR, baseline was established with the publication of the NOP in 2001. The existence of the Oroville Facilities and their current operations are part of the baseline environmental condition. CEQA requires that an EIR discuss the significant environmental effects of the Proposed Project when compared to the Existing Conditions (i.e., baseline). Further, CEQA defines “significant effect on the environment” as meaning a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project. See State CEQA Guidelines Section 15382. The comments are objecting to the Existing Conditions and not the changes proposed. Because those comments do not raise significant environmental issues related to the Proposed Project, no further response is necessary. See State CEQA Guidelines Section 15088. However, in the interest of full disclosure, DWR provides Responses to Comments N0004-1 through N0004-11 below.

### **Response N0004-1:**

Water diverted from the Oroville Facilities services approximately 102,000 acres of rice. Only a small fraction of this acreage is potentially subject to effects of cold water temperatures. Even in fields receiving the coldest water, large portions of the fields are in areas where water has warmed up to the ambient conditions and therefore are not affected by source water temperatures. In addition, there are large areas of the districts that either are in the farthest reaches of the distribution system or are served by drain water that have no water temperature effects at all. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, for additional information relevant to this comment.

### **Response N0004-2:**

The commenter references a DWR publication published in the early 1960s entitled “Temperature Control of Water from Oroville Reservoir.” The publication was a public information pamphlet to explain the need and benefits of building the water temperature control structure in Lake Oroville. DWR built the device and can and has consistently delivered water warmer than 42 degrees Fahrenheit (°F). SWP Bulletin 200 (DWR 1974) identifies the original purpose of the water temperature control structure to address water temperatures for fish propagation, rice production, and recreation.

Regardless of the rationale for the construction of the water temperature control structure identified in the bulletin, the intent of the facilities has been superseded by subsequent water temperature management requirements imposed by the fisheries resource agencies. The Oroville Facilities serve multiple purposes including but not limited to agriculture, water supply, flood management, power generation, aquatic resources, and recreation uses. DWR manages and complies with the diverse *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* (Basin Plan) beneficial uses, FERC license requirements, U.S. Army Corps of Engineers (USACE) regulations, and other environmental requirements and demands on the Project. DWR remains committed to meeting the contractual obligations to provide suitable water for irrigated agriculture within the constraints of other mandates imposed on the Project.

DWR continues to meet the commitment to provide water temperature management on the Feather River consistent with the multiple purposes of the Project, including fisheries and agriculture. The publication referenced in the comment states in part "...Even without Oroville Dam, water temperatures of the Feather River are not ideal for rice growth" and "even within this critical range, temperature fluctuations drastically affects the harvest." The Oroville Facilities have modulated the drastic water temperature fluctuations and have increased the reliability of that supply delivered to the districts. Since publication of the referenced pamphlet in the 1960s, numerous regulatory requirements have been promulgated to protect environmental resources and that dictate the conditions under which DWR is required to operate the Project. For example, water from Thermalito Afterbay is used to meet the requirements to protect cold water beneficial uses, in addition to meeting the needs of agricultural diverters and other senior water rights holders.

Under Existing Conditions, the temperature of water released from the Oroville Facilities is dictated by the flow and water temperature compliance requirements mandated by DFG and NMFS. Section 4.2.2 of the DEIR describes these water temperature management requirements under Existing Conditions. The release temperatures from Oroville Dam are managed to meet Feather River Fish Hatchery and Robinson Riffle temperature objectives included in the 1983 DFG Agreement and the OCAP BO. DWR has strived to operate at the high end of allowable water temperature ranges to minimize the effects on irrigated agriculture water temperatures and provide water of suitable temperature for all beneficial uses. The desire by the agricultural diverters for warmer water temperature in Thermalito Afterbay conflicts with water temperature objectives for endangered fish species in the lower Feather River, hatchery objectives, operational mandates, and overriding meteorological conditions. DWR continues to comply with the Basin Plan beneficial uses despite these divergent and conflicting purposes.

The comment also refers to the DWR letter signed by Mr. Jim Spence dated September 19, 1999. This letter was to NMFS transmitting DWR's comments on NMFS's draft BO for the Feather River. NMFS was proposing to reduce the temperature of water in the LFC and DWR was pointing out the impact that this requirement may have on agricultural diversions. The statements in the letter were in support of preserving

favorable water temperatures for the growers and do not imply any new commitments to the districts. NMFS issued its final BO, which retained the reduced water temperature requirements contained in the draft BO without revision. Therefore, the Oroville Facilities have been mandated to release colder water for the protection of cold freshwater fisheries under both the 1983 DFG operating agreement and the NMFS BO (2004). Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, for additional information relevant to this comment.

Lastly, the existence of the Oroville Facilities is part of the baseline environmental condition. CEQA requires that an EIR discuss the significant environmental effects of the Proposed Project when compared to the Existing Condition (i.e., baseline). For discussion of the cumulative-related aspect of the comment regarding pre-Project conditions, please see Chapter 2.0 in this FEIR, Section 6.2.11, Agricultural Resources, for additional information specific to this comment.

**Response N0004-3:**

Based on the two executed agreements by DWR and the districts in 1969, DWR agreed to preserve the districts' senior water rights, but it did not agree to deliveries of water at any specific temperature. The alleged delivery of water with temperature similar to pre-Project conditions is the districts' interpretation of the contract. This interpretation ignores the regulatory environment under which DWR is obligated to operate the Project and it assumes that the districts would have been able to continue their previous diversions without complying with the current fisheries management-related regulatory mandates. DFG expressed its concerns about the negative impact of warm water on the fish in the Feather River in both its 1955 report (DFG 1955) and its 1967 agreement (DWR 1967) with DWR, 2 years before the 1969 agreements with the districts. DWR water rights and the current FERC license were issued subject to the 1967 agreement with DFG. DFG set the water temperature requirements for water deliveries from Lake Oroville to the Feather River Fish Hatchery to be within a range from 51°F to 60°F from May 1 to September 1. Lake Oroville is the source of water for both the Feather River Fish Hatchery and Thermalito Afterbay. Therefore, any warmer water temperatures suggested by the commenter could not have existed then and could not exist under the current water temperature management requirements.

In 1983, DWR executed the current agreement with DFG establishing the minimum flow and temperature criteria in the LFC and in the channel below Thermalito Afterbay Outlet to the confluence with the Sacramento River. These criteria are shown in the DEIR, Tables 5.4-1 and 5.4-2. In addition, NMFS issued a BO in 2002 establishing quantitative criteria for temperature and flow in the lower Feather River between the Diversion Dam and River Mile 61.6 (near Robinson Riffle). This BO was issued for the federally listed threatened Central Valley spring-run Chinook salmon and Central Valley steelhead and required water temperature at Robinson Riffle of no more than 65°F from

June 1 to September 30. In October 2004, NMFS issued a BO that superseded its previous BOs.

The Oroville Facilities are operating in accordance with the various regulatory requirements imposed by State and federal agencies. Any discussion of water temperature releases from the Oroville Facilities is incomplete without considering these mandatory and non-discretionary requirements. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.3.1, The Project Meets the Competing Needs of the Water Body, for information specific to this comment.

**Response N0004-4:**

The characterizations “...exceedingly cold-water...” and “...serious damage...” are subjective and unsubstantiated terms as presented in the comment. As stated in the Prefatory Note above, the existence of the Oroville Facilities and their current operations are part of the baseline environmental condition. CEQA requires that an EIR discuss the significant environmental effects of the Proposed Project when compared to the Existing Conditions (i.e., baseline). This comment objects to the existing conditions and not to the conditions that would result from the implementation of the Proposed Project. Please see in the FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.2.1, Impacts on Rice Yields from the Proposed Project Would Be Small, for additional information regarding the response to this comment. Also, please see Chapter 2.0 in this FEIR, Section 6.2.11, Agricultural Resources, for additional information specific to this comment.

**Response N0004-5:**

In March 2008, DWR and the Districts signed the “Amendment to Agreements on Diversion of Water from the Feather River and Settlement of Issues related to the Temperature of Water Diversions” to resolve this outstanding water temperature issue and amend the Diversion Agreements. This settlement agreement amends the Diversion Agreements by providing that all past, present, or future claims of liability resulting from the delivery or diversion of cold water from the Oroville Facilities, and that could be brought by the Districts or growers within the Districts’ service areas, are satisfied and resolved.

This settlement agreement addresses potential impacts that are related to the early water right settlement issues, which are separate from the CEQA analysis presented in the DEIR and FEIR. DWR has provided a copy of this settlement agreement to FERC for informational purposes.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.4, The Settlement between DWR and Agricultural Diversifiers Resolves All Outstanding Contractual and Economic Issues Related to Water Deliveries, for additional information specific to this comment.

**Response N0004-6:**

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.3, The DEIR Properly Analyzed the Impacts of the Proposed Project on the Designated Beneficial Uses; Section 3.2.3.1, The Project Meets the Competing Needs of the Water Body; and Section 3.2.4, The Settlement Between DWR and Agricultural Diverters Resolves All Outstanding Contractual and Economic Issues Related to Water Deliveries, for information specific to this comment.

**Response N0004-7:**

To clarify the comment, DWR does not dispute that cold water can cause yield loss in rice, but in the Districts-referenced document DWR does identify a number of issues with the District Intervention Letter. In DWR's intervention response (DWR 2006), DWR does identify that the District Intervention Letter uses an improper environmental baseline; includes a yield loss proposed by the Districts that is overstated, unsubstantiated, and rife with uncertainties; provides an inaccurate summary of the currently available published literature on cold water effects on rice yield loss; and includes a District analysis of cold water-caused yield loss that is incomplete because it does not consider Project benefits. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.1.1, A Qualitative Analysis of Impacts is Proper, for additional information specific to this comment.

**Response N0004-8:**

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.1.2, The Decision to Not Use the 2005 Cold Water Study in the DEIR Was Proper, for information specific to this comment.

**Response N0004-9:**

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.2.1, Impacts on Rice Yields from the Proposed Project Would Be Small, for information specific to this comment.

**Response N0004-10:**

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.4, The Settlement between DWR and Agricultural Diverters Resolves All Outstanding Contractual and Economic Issues Related to Water Deliveries, for information specific to this comment.

**Response N0004-11:**

Please see Chapter 2.0 of this FEIR, Section 6.2.11, Agricultural Resources, for information specific to this comment.

**Response N0004-12:**

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.2.1, Impacts on Rice Yields from the Proposed Project Would Be Small, for information specific to this comment.

**Response N0004-13:**

Please see Chapter 2.0, of this FEIR, Section 6.2.11, Agricultural Resources, for information specific to this comment. Also, please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.2.1, Impacts on Rice Yields from the Proposed Project Would Be Small, for additional information specific to this comment.

**Response N0004-14:**

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.2.1, Impacts on Rice Yields from the Proposed Project Would Be Small, for information specific to this comment.

**Response N0004-15:**

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.1.2, The Decision to Not Use the 2005 Cold Water Study in the DEIR was Proper, for information specific to this comment.

**Response N0004-16:**

The commenter's interpretation of the preliminary 2005 study results is incorrect. The average yield loss of 14 percent to which the commenter refers is the average yield loss that occurred in the first check (check 1) of the experimental fields (i.e., where water is first introduced to the field) compared to a specific unaffected area (check 3). The first check represents only a portion of the area of the field. Therefore, for the commenter's analytical approach to be valid, the entire area of the experimental field would need to be taken into account, rather than just the areas of the experimental and control checks (i.e., checks 1 and 3, respectively). Based on an analysis of the preliminary 2005 study results, the average yield loss in each of the experimental fields is approximately 1.9 percent, assuming that the check 3 yields were representative of the average yield for the entire unaffected portion of the experimental fields (i.e., all checks except check 1 in each field). This preliminary estimate is inclusive of all losses associated with cold water exposure and does not differentiate cold water damages that may have occurred from conditions that existed prior to the construction of the Oroville Facilities. The

commenter's representation of a 14 percent yield loss in the experimental fields is incorrect and overstates the loss by a factor of more than seven times.

Further, any interpretation of the 2005 study should take into account the fact that three of the six experimental fields were selected because they represented the extreme of cold water exposure conditions in the districts. The average yield loss of the six experimental fields is based on too small a sample to reasonably generalize across the district, so a simple average is also not an accurate or reliable method to characterize the range of conditions that occur throughout the districts. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.1.2, The Decision to Not Use the 2005 Cold Water Study in the DEIR was Proper, for additional information specific to this comment.

**Response N0004-17:**

There are a number of potentially useful studies documenting the relationship of water temperatures to physiological stages of rice growth that are not cited in the university's 2005 report. For example, several uncited reports state that rice growth can be retarded at water temperatures below 60.8°F (Hearth and Ormrod 1965), while Williams and Wennig (2003) provide water temperature tables that indicate the low critical water temperatures are 50°F for germination, 55°F for seedling growth, 48–61°F for tillering, and 59°F for panicle initiation. Given the range of water temperatures reported for the various crop growth stages, and given that the timing of crop growth stages varies throughout the district, the body of available literature does not support any one particular temperature standard for optimal rice production. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, for additional information relevant to this comment.

**Response N0004-18:**

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.2.1, Impacts on Rice Yields from the Proposed Project Would Be Small, for information specific to this comment.

**Response N0004-19:**

This reference to the DEIR is paraphrased and is essentially a correct restatement. However, to clarify the reference in the comment, the analysis concludes that approximately 25 percent of the period during the rice water temperature–sensitive growth stages, the water temperatures during the Proposed Project's initial license period could be reduced by as little as 0°F to as much as somewhat less than 2°F when compared to the Existing Condition.

In addition to the small reduction in source water temperature, DEIR Section 5.2, page 5.2-15, concluded that water temperatures could warm at the agricultural diversions with the implementation of the Proposed Project due to increased residence time and the

resulting opportunity for water to warm in Thermalito Afterbay prior to diversion. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.2.1, Impacts on Rice Yields from the Proposed Project Would Be Small; and Section 3.2.2.2, The Proposed Project May Increase Water Temperatures for Agriculture, for additional information specific to this comment.

**Response N0004-20:**

DWR acknowledges that rice yields can be affected by water temperatures and duration of exposure to water temperatures. However, there are a number of other production factors that potentially affect rice yields (e.g., rice variety, water depth management, and planting timing) that are interdependent with irrigation water temperature but that are not considered in the 2005 study. The experimental design criteria used for the 2005 study were to minimize or eliminate other production variables (other than cold water) that can affect rice yields so that the effects of cold water on rice yield could be isolated for analysis. The statistical analysis included in the 2005 study did not evaluate factors affecting yield other than cold water exposure. Therefore, the commenter's assertion that cold water was the best predictor of yields is not supported by the study. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.1.2, The Decision to Not Use the 2005 Cold Water Study in the DEIR Was Proper, for additional information specific to this comment.

**Response N0004-21:**

A supplemental analysis of the relative increase in the estimated change in duration of water temperatures below 65°F at the Western Canal Water District diversion in the Thermalito Afterbay has been conducted in response to this and related comments. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields; and Section 3.2.2.1, Impacts on Rice Yields from the Proposed Project Would Be Small, for additional information specific to this comment.

**Response N0004-22:**

Please see Chapter 2.0 in this FEIR Chapter 2.0, Section 6.2.11, Agricultural Resources, for information specific to this comment. Also, please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.2.1, Impacts on Rice Yields from the Proposed Project Would Be Small, for additional information specific to this comment.

**Response N0004-23:**

The DEIR analysis of Project impacts on agricultural land complies with CEQA and serves its public disclosure purpose. The significance criteria utilized in the DEIR analysis were taken from Appendix G of the State CEQA Guidelines, which focuses on the conversion of agricultural land as the relevant "physical" impact on the environment. This focus is consistent with CEQA's overall requirement for an EIR to disclose and describe mitigation for significant adverse impacts to the physical environment. Social

and economic consequences of a project are not considered significant impacts on the physical environment; therefore, the DEIR properly declined to characterize the economic consequences related to rice yields for significance within the meaning of CEQA. Please see in this FEIR Chapter 3.0, Master Responses, Relationship between the Oroville Facilities and Rice Yields, Section 3.2.1.1, A Qualitative Analysis of Impacts is Proper, for additional information specific to this comment.

**Response N0004-24:**

The DEIR conclusion that no land would be converted as a result of the project was based on reasoning that any change in water temperature would have a minimal effect on yields and therefore would not cause conversion of farmland either directly or indirectly. As explained in Response to Comment N0004-21, this discussion properly analyzes the potential for the Project to cause a change in the physical environment that would have an adverse impact on the land itself, rather than on an agricultural commodity grown on that land.

The DEIR does include a discussion of how the Project may result in changes to water temperatures that could in turn reduce rice yields; see DEIR Section 5.13.1. The potential for reduced crop yields is not, in and of itself, a significant adverse impact on the physical environment. Consequently, the DEIR properly considered whether the potential for reduced rice yields could lead indirectly to conversion of agricultural land, concluding that it would not and that therefore this Project created no adverse impact on the environment related to the physical characteristics of agricultural land itself. Economic or social changes that a project may cause “shall not be treated as significant effects on the environment.” (State CEQA Guidelines, Section 15131[a].) In other words, the economic or social changes that a project may cause are not, in and of themselves, significant environmental effects that require analysis in an EIR. Finally, regarding the third issue of the Districts’ comment, the comment is unclear and no specific reference to DEIR text has been provided. To the extent that the comment suggests the DEIR recognizes a potential for reduced rice yields to constitute a significant impact, the comment is correct. The DEIR acknowledges the possibility that reduced water temperatures could potentially reduce rice yields to a degree that result in agricultural land conversion, a significant impact on the physical environment. As explained in the DEIR, however, any rice yield reductions associated with the Project’s slightly reduced water temperatures are not anticipated to cause agricultural land conversion.

Please see in this FEIR Chapter 3.0, Master Responses, Relationship between the Oroville Facilities and Rice Yields, Section 3.2.1.1, A Qualitative Analysis of Impacts is Proper; and Section 3.2.2.1, Impacts on Rice Yields from the Proposed Project Would Be Small, for additional information specific to this comment.

**Response N0004-25:**

While not mandatory, the Appendix G Initial Study Checklist in the State CEQA Guidelines provides an appropriate basis for determining whether this Project has significant impacts on agricultural land. The comment correctly states that under CEQA, a significant effect on the environment is a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project. When a proposed project would cause changes in the physical conditions in an area resulting in only economic consequences, the economic consequences themselves are not categorized as significant impacts on the physical environment under CEQA. While a project's economic consequences may be one factor in determining whether a physical change in the environment is a significant impact, it is not determinative.

**Response N0004-26:**

Please see Response to Comment N0004-23. DWR disagrees with the statement that California courts have recognized that EIRs must analyze a project's adverse effects on agricultural production. State CEQA Guidelines Section 15131(a) states that an EIR shall not treat economic effects as significant effects on the environment, and this point has been widely recognized in CEQA cases. In addition, Section 15131 states that while economic and social information may be presented in an EIR, it may also be presented in whatever form a lead agency chooses. This is consistent with CEQA's emphasis on adverse impacts on the physical environment, rather than on economic and social effects. The DEIR complied with Section 15131 by providing an analysis of the Project's potential to cause direct and indirect physical changes in the environment, including changes that could result indirectly from reduced rice yields. Please see in this FEIR Chapter 3.0, Master Responses, Relationship between the Oroville Facilities and Rice Yields, for additional information relevant to this comment.

**Response N0004-27:**

The best available analysis of the relative change in irrigation water temperature conditions (as presented in Response to Comment N0004-19) and therefore representative of the relative affect on rice yields of the Proposed Project, estimates that there would be less than a half percent increase in duration of water temperatures below 65°F at the Western Canal Water District agricultural diversion as compared to the Existing Condition. Since the worst-case scenario results in approximately a half percent increase in the duration of water temperatures below 65°F at the irrigation water source for the most water temperature-affected district, and because the yield loss response of rice to incremental exposures to water temperatures below 65°F is fairly linear—that is, small changes in exposure correspond to small changes in total yield loss—the overall effect on rice yields from the implementation of the Proposed Project would be correspondingly small. By inference, then, the incremental economic impact would be small as well. Further, to put the economic impact in perspective, crop inputs and labor for areas in rice fields affected by water temperatures are the same as (or in some cases slightly higher than) those without water temperature effects. Therefore, most of the typical economic effects on farming support services and supplies from

fallowing fields would not occur. Other than the direct loss to the growers for the economic losses from reduced rice yields, which has been addressed within the contractual relationship between DWR and the Districts, the economic ripple effect throughout the rest of the community would not result in physical changes that would create a significant impact on the environment. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, for additional information relevant to this comment.

**Response N0004-28:**

To provide context and perspective on what constitutes the beneficial use for agriculture, it is helpful to restate the agricultural beneficial use as set forth in the Basin Plan: “Uses of water for farming, horticulture, or ranching, including, but not limited to, irrigation (including leaching of salts), stock watering, or support of vegetation for range grazing.”

Based on this definition, to meet the beneficial use the Proposed Project needs to supply water of sufficient quantity and timing for irrigation and stock watering. The Basin Plan does not specify a target temperature for the water supplied to agricultural users. However, in the interest of addressing the issues raised in the comments, the water temperature effects on irrigated agriculture beneficial uses are discussed in the following sections.

As described in Section 5.2.2.1 of the DEIR, DWR evaluated both the Existing Condition’s and the Proposed Project’s compliance with the Basin Plan–designated beneficial uses, including irrigated agriculture. Compliance with water quality standards, including the Basin Plan–designated beneficial uses, was one of the impact thresholds utilized in the DEIR evaluation of water quality; see DEIR Sections 4.2.2, 4.13, 5.2.2.5, and 5.13. The DEIR’s evaluation of the Proposed Project effects of water quality on irrigated agriculture beneficial uses in Section 5.2.2.5 concluded: “Implementation of the potential future facilities modifications under the Proposed Project may result in either beneficial or less-than-significant effects on agricultural—irrigation Basin Plan beneficial uses.”

As presented in the DEIR, Section 5.2.2.5, the evaluation of the beneficial uses for irrigated agriculture should not be determined by a single aspect of the beneficial use. The totality of the effect of the Proposed Project on a beneficial use is required to be evaluated to complete a comprehensive assessment. Water temperature, as it relates to the suitability of water for irrigated agricultural beneficial uses, should only be one factor in the evaluation of the beneficial uses for irrigated agriculture. Evaluation of the irrigated agriculture beneficial uses would be incomplete without consideration of other relevant and potentially balancing factors.

Other factors that should be included in the evaluation of irrigated agriculture beneficial uses include (1) conflict with other designated beneficial uses, (2) the effect of

increased reliability of water supply, and (3) the effect of increased quantity of water supply on irrigated agriculture. When considered in their totality, the Existing Condition and the Proposed Project both result in substantial benefits to irrigated agriculture—designated beneficial uses.

In analyzing whether the Project will meet all of the designated beneficial uses, it must be understood that the water bodies that constitute the Oroville Facilities are considered cold water bodies in the Basin Plan. The Basin Plan divides Project waters into two separate segments; the first is Lake Oroville and the second is from the Fish Barrier Dam to the Sacramento River. Although it is unclear which segment Thermalito Afterbay falls under, what is clear is that both segments are designated in the Basin Plan as both cold water and warm water beneficial uses. As noted in the DEIR, the Basin Plan states that segments with both warm water and cold water beneficial use designations are considered cold water bodies for the application of water quality objectives. Therefore, the water bodies within the Project boundary, which must by deduction include Thermalito Afterbay, are considered cold water bodies for purposes of the beneficial uses analysis.

Water from Thermalito Afterbay is used to meet the needs of agricultural diverters as well as cold water beneficial uses. Oroville Facilities release water temperatures under the Existing Condition are dictated by the flow and water temperature compliance requirements mandated by DFG and NMFS. Section 4.2.2 of the DEIR describes the water temperature management requirements under Existing Conditions. The release temperatures from Oroville Dam are designed to meet Feather River Fish Hatchery and Robinson Riffle temperature objectives included in the 1983 DFG Agreement and the OCAP BO while also conserving the cold water pool in Lake Oroville. Under current operations, water temperature objectives at Robinson Riffle are almost always met when the hatchery objectives are met. Due to water temperature objectives for endangered fish species in the lower Feather River, hatchery objectives, and overriding meteorological conditions, the desire by the agricultural diverters for warmer water temperature in Thermalito Afterbay conflicts with operational mandates, making it difficult to satisfy.

Increasing water temperatures to optimize irrigated agriculture beneficial uses would be substantially detrimental to the more sensitive and Endangered Species Act (ESA)—driven conflicting designated beneficial use for cold fresh-water fisheries. As an example of the difference in sensitivity of these two beneficial uses, if water temperatures were reduced by 2°F, an incremental increase in rice yield loss would occur. In contrast, in the event of a 2°F water temperature increase, the effect on the cold fresh-water fisheries could result in the loss of a substantial portion of suitable habitat in the lower Feather River, and in some cases, could result in lethal effects on the coldwater fisheries and cause reductions in ESA-listed species' populations.

Based upon the discussion above, the question of whether agricultural beneficial uses would be met by the Proposed Project must take into consideration that the water for agricultural purposes is drawn from a designated cold water body, the operations of which are dictated by regulatory requirements for the preservation of ESA-protected

cold water fish, and that the requirement for agriculture as set forth in the Basin Plan calls for an unspecified quantity of water to be delivered for irrigation with no specified requirement that the water be of a certain temperature. In light of these divergent beneficial uses, the Proposed Project would continue to appropriately prioritize to meet all of the designated beneficial uses set forth in the Basin Plan.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.3, The DEIR Properly Analyzed the Impacts of the Proposed Project on the Designated Beneficial Uses, for additional information specific to this comment.

**Response N0004-29:**

The DEIR utilized compliance with the Basin Plan as a significance criterion. The Proposed Project was evaluated based on significance thresholds as defined in the State CEQA Guidelines. As noted on page 5.2-9 of the DEIR, DWR acknowledges that according to the Basin Plan, the natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the regional water quality control board (RWQCB) that such alteration does not adversely affect beneficial uses. The temperature component of water quality was analyzed in Section 5.2 of the DEIR. Please see Response to Comment N0004-28; see also in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.3, The DEIR Properly Analyzed the Impacts of the Proposed Project on the Designated Beneficial Uses, for additional information specific to this comment.

**Response N0004-30:**

The intent of the comment is unclear; therefore, a specific response is not possible. In general, the comment can be responded to with the material included in Response to Comment N0004-28. Also, please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.2.3, FERC's FEIS Reached the Same Conclusion Regarding Water Temperature Changes Resulting from the Proposed Project; and Section 3.2.3, The DEIR Properly Analyzed the Impacts of the Proposed Project on the Designated Beneficial Uses, for additional information specific to this comment.

**Response N0004-31:**

Section 4.13 of the DEIR fully disclosed and evaluated both the Existing Condition and the effects of water temperatures on rice. The Proposed Project's compliance with the Basin Plan-designated beneficial uses, including irrigated agriculture, was disclosed and evaluated in DEIR Sections 5.2.2.5 and 5.13.

Please also see Response to Comment N0004-23; and in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields,

Section 3.2.2.1, Impacts on Rice Yields from the Proposed Project Would Be Small, for additional information specific to this comment.

**Response N0004-32:**

Please see Responses to Comments N0004-12, N0004-21, and N0004-27.

**Response N0004-33:**

Water temperature effects on Basin Plan–designated beneficial uses were evaluated in the DEIR, Section 5.2.2. The Proposed Project does not substantially change the existing water temperatures. Therefore, the commenter’s assertion that the water temperature effects are significant is not supported. DWR has not received any correspondence or notice from the RWQCB indicating that the project is in violation of the Basin Plan for irrigated agriculture beneficial uses as asserted by the commenter. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.3, The DEIR Properly Analyzed the Impacts of the Proposed Project on the Designated Beneficial Uses; Section 3.2.3.1, The Project Meets the Competing Needs of the Water Body; and Section 3.2.3.6, The Proposed Project Would Continue to Meet Basin Plan Beneficial Uses, for additional information specific to this comment.

**Response N0004-34:**

DWR has not acknowledged that “water temperature thresholds affect rice yields,” as it is not “thresholds” that cause yield losses. Prolonged exposure of rice to cold water temperatures below a water temperature threshold can cause rice yield losses. The commenter misunderstands and is misrepresenting the studies referred to. The studies document rice yields related to an individual location within a field and the yield response to cold water exposure. Where the commenter’s misunderstanding comes from is that a small change in source water temperature results in a small increase in cold water exposure in the small areas in a field that are already exposed to cold water. The total area that is affected by cold water is also increased proportionately by the small reduction in water temperatures. DWR’s analysis and conclusions are consistent with the studies; it is the use and interpretation by the commenter that is contrary to these studies and their findings. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.2.1, Impacts on Rice Yields from the Proposed Project Would Be Small, for additional information specific to this comment.

**Response N0004-35:**

If the commenter is referring to the variation in degree of yield loss that occurs due to cold water temperature exposure at different crop growth stages, there is no readily available published literature to provide insight on this potential facet of cold water exposure to yield loss relationship. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section

3.2.2.1, Impacts on Rice Yields from the Proposed Project Would Be Small, for additional information specific to this comment.

**Response N0004-36:**

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, Section 3.2.4, The Settlement between DWR and Agricultural Diverters Resolves All Outstanding Contractual and Economic Issues Related to Water Deliveries, for information specific to this comment.

**Response N0004-37:**

The concerns expressed by the commenter that are relevant to CEQA compliance have been appropriately addressed in the DEIR. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, for additional information relevant to this comment.

**Literature Cited:**

DFG (California Department of Fish and Game). 1955. A Report to the State Engineer of California on Fish, Wildlife and Recreational Resources in Relationship to the Proposed Oroville Reservoir. May 1955.

DWR (California Department of Water Resources). 1967. Agreement Concerning the Operation of the Oroville Division of the State Water Project for Management of Fish and Wildlife.

DWR (California Department of Water Resources). 1974. California State Water Project Volume IV Power and Pumping Facilities, Bulletin 200. November 1974. Page 50.

DWR (California Department of Water Resources). 2006. Response of the California Department of Water Resources to Recommendations, Terms and Conditions, Prescriptions, and Settlement Comments. May 26, 2006. Pages 75-86 and Attachment C.

Hearth, W., and D. P. Ormrod. 1965. Some Effects of Water Temperature on the Growth and Development of Rice Seedlings. *Agronomy Journal* 53:373–376.

Williams, J., and R. Wennig. 2003. Temperature Effects on Rice. *UC Rice Research* 1(3):2 (Fall 2003).

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## COMMENTS FROM PATHFINDER QUARTER HORSES

Mon, August 20, 2007 10:59 pm

Vicki Hitteon [REDACTED]

Pathfinder Quarter Horses  
66 Willow Drive  
Oroville, CA 95965

August 20, 2007

State of California  
The Resources Agency  
Department of Water Resources

ATTN: Rick Ramirez (FAX) 916 654-8748

RE: Oroville Facilities -- Draft Environmental Impact Report May 2007

Dear Mr. Rameriz:

Please accept and review these comments in reference to the Draft Environmental Impact Report prepared by DWR for the Lake Oroville Facilities Relicensing – FERC Project No. 2100.

Throughout the re-licensing process, DWR did not consider the equestrian history, heritage, and participation of the Oroville community, primarily through the Oroville Pageant Riders. This equestrian group was responsible for most of the Oroville Riding and Hiking Trails throughout the LOSRA, including the first recreation facility at the Oroville Dam, dedicated to Dan Beebe on June 8, 1963. Oroville Pageant Riders and the OPR involvement in the Oroville resource area are not mentioned in the Draft EIR. This is a major error on the part of DWR.

The Lake Oroville State Recreation Area (LOSRA), a state water project, has a long history of equestrian recreational use provided by the Department of Water Resources (DWR) and the Department of Parks and Recreation (DPR) as mitigation for community loss of lands, historical commercial use, and recreational use unique to the Oroville resource area.

Local equestrians have a long history of cooperation with the LOSRA agencies in planning, construction, maintenance, and enjoyment of trails and camping facilities. According to the Federal Energy Regulatory Commission, reported in the 2004 Lake Oroville Environmental Analysis and the 2007 Lake Oroville Final Environmental Impact Statement, "equestrian recreational trails provide a unique experience worthy of preservation."

The DWR 2006 Recreation Management Plan (RMP) Settlement Agreement states, "additional planning and design assessment is necessary to effectively balance public access and recreational needs or desires with management requirements to ensure appropriate levels of resource protection and public safety."

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AM 8:05  
N0005-1

Oroville's organized equestrians have enjoyed their recreation nexus to the Feather River for decades. In the 1930s, Oroville resident Dan Beebe, along with his friends and colleagues, organized the Oroville Trail Riders. In the 1940s, this same group organized Oroville Pageant Riders. Following the Feather River, Oroville's historic Dan Beebe Hiking and Equestrian Trail was dedicated in 1963 as a significant portion of the California Riding and Hiking Master Trail, with future references and plans for the trail to continue to Feather Falls Village as a connection to the Pacific Crest Trail.

Although original DWR planners for Lake Oroville recreation proposed equestrian stabling facilities at Loafer Creek, this project has not been completed. With stabling, secure parking, potable water and restroom facilities, the Oroville resource area would be the primary trailhead for hikers, mountain bikers, and equestrians at Lake Oroville State Recreation Area, with access to more than 80 miles of improved trails. Equestrians especially appreciate the services provided in the City of Oroville, with expenditures estimated at \$100 per overnight visiting rider and horse per day.

The Pathfinders find the DWR EIR deficient in socio-economic study and evaluation of the primary equestrian community and those who come to Lake Oroville as a primary equestrian recreation destination.

N0005-2

It is very apparent that the Draft EIR does not contain protesting individuals or organizations that do not agree with the Settlement Agreement or the proposed Recreation Management Plan. The numbers of equestrians protesting the conversion of traditional hiking-equestrian trails to multiple-use are a far, far greater number than the two equestrian signatures on the Settlement Agreement.

N0005-3

Page 2-19, Item 2.3.5, Other Stakeholder Organizations includes equestrian signatories of the California State Horsemen's Association and the California State Horsemen's Association Region 2. Please be advised that these signatures are being contested. The numbers of members that may have approved these signatures are less than 50. The membership of CSHA statewide is about 750 direct members and about 6000 individuals that are "club members" in local clubs that have joined CSHA throughout the state office for a variety of reasons, i.e. programs and group liability insurance. These "club members" have no individual right to vote. The CSHA member clubs and club members outside of Butte County are primarily unaware of the signatories, except for two member clubs of Region 2: Plumas County High Mountain Riders with 10 members and the Glenn County Desperado Horse Club that represents gymkhana arena sports.

N0005-4

A majority of CSHA direct members in Butte County and all CSHA member clubs of Butte County, the location of the Oroville Facilities and the LOSRA, i.e. Oroville Pageant Riders (incorporated May, 1949), Golden Feather Riders, and Paradise Horsemen's Association signed a motion to intervene and protest of the Settlement Agreement and proposed Recreation Management Plan. The only remaining Butte

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County equestrian clubs, Chico Equestrian Association and Back Country Horsemen of California Sutter Buttes Unit, also signed the intervention and protest of the Settlement Agreement and proposed Recreation Management Plan. William O. Davis, Attorney at Law, prepared and filed this motion of intervention and protest.

In other words, ALL Butte County equestrian organizations protest the DWR Settlement Agreement and the Recreation Management Plan. This is clear evidence that the DWR Environmental Impact Report is deficient in recreation-socio-economic studies and results.

N0005-5

Additionally, the following organizations representing nearly all major equestrian groups in California and individuals signed the motion of protest and intervention with William O. Davis:

**Organizations**

Action Coalition of Equestrians  
("A.C.E.")  
Attn: Janet Peterson  
Meadow Vista, California

Backcountry Horsemen of California  
Caballeros del Sol Unit  
Attn: Kathleen Hayden  
Santa Ysabel, CA

Backcountry Horsemen of California  
Coyote Canyon Caballos d'Anza  
Unit  
[501 c 3 status pending]  
Attn: Robert Hayden  
Santa Ysabel, CA

Backcountry Horsemen of California  
North Bay Unit  
Attn: Virginia Lewis  
Sonoma, CA

Backcountry Horsemen of California  
Sutter Buttes Unit  
Attn: Ben DuBose  
Gridley, CA

California Equestrian Trails & Lands  
Coalition ("C.E.T. & L.C.")

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Attn: John Keyes, Chair  
Prather, California

Representing: Pacific Coast Quarter Horse Association  
Marin County Horse Council  
Sonoma County Horse Council  
Recreation & Equestrian Coalition  
Heritage Trails Fund  
Palos Verdes Peninsula Horsemen's Association  
Equestrian Trails, Inc.

Chico Equestrian Association  
Attn: Linda Crum  
Chico, CA

Equestrian Trail Riders  
Attn: Cathy Hodges  
Oroville, California

Equestrian Trails, Inc.  
Attn: Lynn Brown, National Trails  
Coordinator  
Sylmar, CA

Golden Feather Riders, Inc.  
Attn: Nancy Weinzinger  
Gridley, CA

Oroville Pageant Riders (OPR)  
Attn: Janine R. Cody  
Oroville, CA

Paradise Horsemen's Association  
(PHA)  
Attn: Judy Orlando  
Paradise, CA

#### Individuals

Therese F. Alvillar  
Occidental, CA 95465

Katie Baygell  
Carmichael, CA

Peggy (Margaret A.) Berry

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Carmichael, CA

Randy Brace  
Oroville, CA

James F. Bryant  
Oroville, CA

George Cardinet  
"Father of the California Trails System"  
CSHA Founding Member  
Walnut Creek, CA

Kim Cipro  
CSHA member, Coordinator  
CSHA Night at the Cow Palace  
Color Guard Competition,  
Cow Palace Challenge National Drill  
Team Competition  
Middletown, CA

Janine and Michael Cody  
Members: OPR, PHA  
Oroville, CA

Everett L. Colburn, DVM  
Gridley Veterinary Hospital  
Gridley, CA

Ronald E. Davis  
Oroville, CA

Ben Dubose  
Butte Creek Outfitters  
Backcountry Horsemen,  
Sutter Buttes Unit, President  
Gridley, CA

Nancy Dupont  
Castle Rock Arabians  
Walnut Creek, CA

Debi Earl  
Sacramento, CA

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Valerie Fischer Gates  
CSHA member  
Fair Oaks, CA

Ruth Gerson  
Agoura, CA

Christy Gillespie  
Sacramento, CA

Carrie Girdler  
Oroville, CA

Randy Hackbarth  
Placerville, CA

Sheila Halousek  
Member, American River Volunteer  
Trail Patrol  
Marysville, CA

Jim Halsey  
Halsey's Classical Creations  
Oroville, CA

John & Roxie Herrington  
Oroville, CA

Vicki Hittson-Weir  
Member: CSHA, CSHA Region 2,  
American Quarter Horse Association  
Oroville, CA

Cathy Hodges  
Member: CSHA, OPR, PHA  
Oroville, CA

Terry Hodges  
Oroville, CA

Sally Hugg  
Oroville, CA

John Keyes

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p.07

CSHA member. Trails Vice Chair  
Springville, CA

Annette D. Kolkey  
Montecielo Ranch  
Chico, CA

Jeff Landre  
Loomis, CA

Kathleen Lyons  
CSHA member. Secretary Region 2,  
CSHA State Resolution Recorder,  
Rulebook Editor  
Oroville, CA

Faye Landau  
Mill Valley, CA

Frank Lurz  
Mill Valley, CA

Michelle Magee  
Roseville, CA

Christina McMurray  
Sacramento, CA

Harriet Merritt  
Danville, CA

Maureen Milligan  
Member: CSHA, OPR, PHA  
Oroville, CA

Johnetta Nicholson  
Marysville, CA

Judith Norton  
President, Chico Equestrian Assn.  
Chico, CA

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Joyce Pickering  
CSHA member  
Harold Pickering  
Red Bluff, CA

Steven Proe  
Greenwood, CA

Terri Riley  
Member, American River Equestrian  
Trail Patrol, BCHC/Mother Lode  
Unit, South County Horseman's  
Association, Golden State Draft  
Horse & Mule Club, Antique  
Carriage Club  
Member/Treasurer, California Draft  
Horse & Mule Association  
Wilton, CA

Roy R. Rogers  
Oroville, CA

Sandy Kovane  
Georgetown, CA

Linda Siegel  
Loomis, CA

Wendy Sturgis  
Member, American River Park  
Equestrian Patrol

Bob Svedeen  
CSHA Life member, Immediate Past  
Chair, Trails

Sharon Talley  
Citrus Heights, CA

Denise Thornton  
Georgetown, CA

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James D. Townsend  
Pamela A. Townsend  
Oroville, CA

Ruth Ann Van Vranken  
Randy Van Vranken  
Orangevale, CA

Nancy Weinzinger  
Vice President, Golden Feather  
Riders; Member: Backcountry  
Horsemen, Clear Lake Horsemen,  
Lake Oroville Mounted Assistance  
Search & Rescue  
Oroville, CA

Robert Weinzinger  
Member: Backcountry Horsemen,  
Golden Feather Riders  
Oroville, CA

Kari L. Wheeler  
Wheeler Ranch & Feed  
Biggs, CA

Laurie Zian  
Sacramento, CA

The American Horse Council Foundation and the American Quarter Horse Association sponsored the 2005 Deloitte document "The Economic Impact of the California Horse Industry." California is the number one horse economy in the United States, with a \$7.2 billion impact on local economies. Equestrian's note that 70% of horse owners in California and in the entire United States primarily participate in recreational trail riding.

Butte County and the Oroville Resource Area equestrians provide a thriving economy to our communities. The following is a Project Evaluation that I prepared for the City of Oroville Special Benefits Fund, representing the strength of the equestrian base.

#### **ECONOMIC IMPACT OF THE CALIFORNIA HORSE INDUSTRY**

Figures provided within this comment letter for "Economic Impact of the California Horse Industry" are quoted from the American Horse Council's 2005

Deloitte impact studies. This document is filed with the Federal Energy Regulatory Commission.

Horses have a daily impact on the lives of millions of American citizens. Horses contribute to human health and well being, sporting prowess, education, and community development. The California horse industry is based on history, tradition, and recreation. It is the largest horse economy in the United States, perhaps in the world. The diversity in the horse industry involves agriculture, business, sport, gaming, entertainment and recreation. The core activities of the industry range from professional to leisure. The City of Oroville's resource area hosts professionals in commercial breeding, education, affiliated sports, training, ranching and showing. Leisure-oriented activities include riding lessons, trail riding, camping and social gatherings. Providers of goods and services to the equestrian community are local feed suppliers, retail tack and supply stores, veterinary services, farriers, trainers, work force, publications, insurance carriers, truck and trailer sales, and maintenance and repair businesses.

The horse industry makes an important contribution to the economy, and to the social fabric of Butte County. It is particularly important in rural areas, such as the Oroville resource area, because 70% of California horse owners live in communities of less than 50,000. The number of horses in California increases 3-4% each year.

Current trends, especially the growth in the leisure economy, suggest potential for real growth in Butte County. The principle requirement for equestrian growth over the next ten years is the development of necessary infrastructure to support an equestrian economy, actively supported by successful strategies related to the entire California horse industry.

The area surrounding Lake Oroville is prime to develop and promote this successful strategy and the necessary infrastructure to support this historically active and rapidly growing equestrian economy.

#### **Economic Development**

Deloitte, Inc. was commissioned to study the economic impacts of the horse industry on the United States, breaking out an individual study of the economic impact of the California horse industry. The 2005 study was funded by the American Horse Council Foundation, Washington D.C. and is included in the supporting documents for this SBF grant application.

As a large, economically diverse industry, the California horse industry contributes significantly to the California economy. Horse owners and industry suppliers, racetracks and off-track betting operations, horse shows and other competitions, recreational riders and other industry segments all generate discreet economic activity contributing to the industry's vibrancy. The spending generated within the horse industry, and the subsequent spending between co-dependent industries, contributes thousands of jobs and billions of dollars to the economy on an annual basis. The Lake Oroville State Recreation Area promotes the horse industry of the Oroville resource area.

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#### **Economic Impacts**

Oroville owns a small portion of these total economic impact values for California:

- \$1.6 billion from Showing
- \$1.9 billion from Recreation
- \$978 million from Other activities

Enhancing all opportunities for equestrian training, recreation and competition, the entire Oroville resource area will greatly benefit from additional equestrian economic impact.

Presently, the local area receives a portion of \$18 million in annual taxes generated by the horse industry. (\$220 million is paid to the state). This portion will increase as equestrian training, recreation and competition increases in the Oroville resource area by increasing local spending.

#### **Industry Participation and Employment**

Oroville is home to a portion of horse owners, employees and volunteers. The California horse industry directly involves approximately 311,100 California residents, including

- 156,300 horse owners
- 68,200 employees
- 86,600 volunteers

Expanding the opportunities for equestrian residential properties, training, recreation and competition, the entire Oroville area will greatly benefit from an increased number of horse owners, employees, volunteers and service providers.

#### **Horse Population Characteristics**

Oroville is home to a portion of California's horses, yet Oroville presently provides an "equestrian recreation destination" as one of the best areas in the state.

The 698,000 horses in California represent the following activities:

- 82,200 in Racing
- 191,900 in Showing
- 315,300 in Recreation
- 108,900 in Other activities

Expanding equestrian opportunities for recreation in the Oroville resource area will reward the entire economic community.

Enhancing the Oroville resource area to market the equestrian population for horse breeding, training, showing and recreation will attract larger numbers of horse owners and further increase the economic impact of equestrians.

**Direct, Indirect and Induced Effects on GDP by Expenditure Category**

The Oroville resource area participates in a portion of direct, indirect and induced effects, and there is a much larger portion available when appropriate promotion and facilities growth occurs.

- \$1,216,000,000 Horse-Related Goods (e.g., feed, tack, etc.)
- \$2,522,000,000 Horse-Related Services (e.g., boarding, training, veterinary, farrier)
- \$ 559,000,000 Horse-Related Transportation (e.g., trailering)
- \$ 619,000,000 Overhead (e.g., utilities, office supplies, etc.)
- \$1,104,000,000 Capital Expenses (i.e. equipment and structures)
- \$6,972,000,000 TOTAL

Marketing the Oroville resource area and the Lake Oroville State Recreation Area as a "recreation destination," a "residential destination," and a "retirement destination" appeals as a "grand scheme" to the equestrian community. After visiting the area for more than 25 years, Pathfinder Quarter Horses relocated in 2003 from Colorado to Oroville, CA for the proximity to equestrian trails for training and marketing quality trail horses. According to PQH, a portion of the typical monthly budget for any horse-related enterprise characteristically is expended to feed, supply and tack stores, breeding, boarding facilities, land leases and mortgages, trainers, farriers, veterinarians, and vehicle services. These expenditures are primarily expended within the Oroville resource area.

**Demographic Information of California Horse Owners**

34% of California horse owners have a household income of less than \$50,000

53% of California horse owners live in communities of less than 50,000

54% of California horse owners are over the age of 45 years.

The horse industry is a thriving part of the California economic landscape and has tremendous potential to grow. The City of Oroville, as a nexus to the Lake Oroville State Recreation Area has a grand opportunity to attract a much larger portion of the California horse industry to Butte County.

Oroville Pageant Riders (OPR) is a dedicated non-profit equestrian association with 58-years of experience in establishing, planning, funding, managing, supporting, and maintaining healthy and enjoyable equestrian recreation and educational opportunities for children, youth, adults and seniors in Butte County. The OPR mission is to provide a variety of equestrian programs that serve community members and the public of every age and background.

**Long-Term Dedication**

In the 1960s, Oroville Dam state water project construction eliminated many of the beautiful trails and open areas along the Feather River that were favorites of local citizens. During this time, Oroville Pageant Riders assisted California Department of

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Parks and Recreation in preserving and maintaining a single trail along the Feather River, below the dam project. The trail was dedicated in 1963 and named for Dan Beebe, the founder of the Oroville Trails Riders and Oroville Pageant Riders. The Dan Beebe Riding and Hiking Trail, is a significant portion of the California Riding and Hiking Master Trail.

The Dan Beebe Riding and Hiking Trail was the first and only trail in the Lake Oroville State Recreation Area during the first 25 years of the State Water Project. Finally in 1989, two 5-mile trail loops were added in the Loafar Creek area. The loss of riding trails, riding space and open areas due to the construction of the Oroville Dam has hampered the growth of the local equestrian economy.

- California is the largest horse economy in the United States, and probably in the world. According to the California Department of Food and Agriculture, Butte County is the home of more horses and equestrians than any other California county north of Sacramento. Statewide, there is a paramount need for public year-round facilities for equestrian recreation and activities. The entire Lake Oroville area has the visible presence to attract equestrians as a "recreation destination."
  - ❖ 45% of horse owners are over the age of 45 and this demographic has the most disposable income for recreation. (The Economic Impact of the California Horse industry)
  - ❖ 40% of the Oroville resource area population is over the age of 40 years.
  - ❖ 7% of California's horse owners are over the age of 65. (ibid)
  - ❖ By 2010, 25% of California's population will be retirees with a greater need for safe, public recreation.

LOSRA hiking-equestrian trails and campground attract individual users on a daily basis from all points in Butte County and weekend and vacationing recreation and equestrian activities from all points in California. The City of Oroville is known for cost-effective consumer goods and services. When an equestrian comes to town to ride at LOSRA, he/she will take the opportunity to spend money in downtown historical shops, save money by shopping for necessities, save money on vehicle purchases and servicing, save money on fuel, and will appreciate all the amenities of Oroville.

Equestrians are traditionally dedicated to promote and preserve the "unique equestrian recreation experience" in Oroville in a highly visible style.

#### Community Need

The DWR 2006 Recreation Management Plan (RMP) Settlement Agreement states, "additional planning and design assessment is necessary to effectively balance public access and recreational needs or desires with management requirements to ensure appropriate levels of resource protection and public safety." The Settlement Agreement provides development for diverse recreation user groups. Equestrians are a majority

user group identified in the Recreation Management Plan. Equestrians are committed to the "equestrian recreation experience worthy of preservation."

Dedicated equestrians have explained in support letters why equestrians need recreation facilities at LOSRA; however, none of these comments are provided in the DWR EIR. ] N0005-6

**Historic Significance**

The body of this comment letter reflects on the Feather River Watershed pre-Oroville Dam, related to public access, public enjoyment and the recreational value of the Feather River. Post-Oroville dam restricted the equestrian usage of trails, open space, and facilities enjoyed by the community for decades. The presence of the Oroville Pageant Riders from 1949, through years of enjoyment and public awareness is commendable. For 58 years, OPR has provided equestrian education, recreation and social functions for Oroville's many horse owners and families.

For these reasons, it is paramount that the Oroville Pageant Riders and the equestrian community in the Oroville resource area be a primary recreation resource for an environmental impact statement on the Oroville facilities.

DWR Environmental Impact Report fails to identify the history, tradition and need for equestrian recreation at Lake Oroville State Recreation Area. It is the studied opinion of the Pathfinders that DWR would prefer to obliterate equestrian recreation at the project. Over six years of fully documented negotiations for capital improvements and new recreation facilities for equestrians at the Oroville project are glaringly absent from the DWR Settlement Agreement, the Recreation Management Plan and the Environmental Impact Report. ] N0005-7  
] N0005-8

The DWR EIR fails to take into consideration the recreation-socio-economic impact of the equestrian community and equestrian recreational visitors on the City of Oroville, the Oroville resource area, and Butte County. ] N0005-9

Sincerely,

Vicki Hittson Weir  
George Weir  
Pathfinder Quarter Horses

## **RESPONSES TO COMMENTS FROM PATHFINDER QUARTER HORSES**

### **Response N0005-1:**

A number of users and user groups collaborated with recreation managers in the planning and maintenance of trails and events. Description of all of these is beyond the scope of the DEIR. However, a general statement reflecting this potentially ongoing relationship has been added within Section 3.2.4.1. Please see Chapter 2.0 of this FEIR for revisions to the DEIR.

### **Response N0005-2:**

A detailed description of the socioeconomic characteristics of Oroville-bound equestrians as suggested by the commenter is outside the scope of the DEIR. An evaluation of the level of satisfaction expressed by all recreation users was conducted as part of Relicensing Study R-13 (SP-R13), Recreation Surveys, and is cited and summarized in the DEIR (see Section 4.7.5). Current use of Project trails (including by equestrians) was addressed by SP-R13, Recreation Surveys, and socioeconomic impacts of recreation use were addressed by SP-R18, Recreation Activity, Spending, and Associated Economic Impacts. These studies were summarized in the DEIR and formed the basis for impact analysis. Trail use is a relatively small fraction of total recreation (and economic) activity at the Oroville Facilities, and equestrian use only a portion of total trail use. The scoping process did not identify the need for a study specific to the socioeconomics of the equestrian community; therefore, the study plans approved by the Recreation and Socioeconomics Work Group did not include studies specifically targeted at that user group.

### **Response N0005-3:**

DWR has prepared the DEIR to evaluate the Proposed Project and alternatives. Comments on this document, including the Proposed Project, are welcome. While the two equestrian organizations supporting the Proposed Project represent hundreds of members, DWR received relatively few comments on the DEIR objecting to the trails as proposed in the Recreation Management Plan (RMP). Nonetheless, for clarification additional text has been added to the Executive Summary describing areas of known controversy surrounding the project. Please see Chapter 2.0, Section ES.9 of this FEIR for revised language.

### **Response N0005-4:**

DWR has no reason to believe that the equestrian organizations that are party to the SA have participated in or expressed support for this collaborative process in any improper manner. To the contrary, DWR notes that during circulation of its DEIS, FERC received substantially more supportive comments than objections to the Trails Plan proposed in the Draft RMP.

**Response N0005-5:**

Please see Responses to Comments N0005-2, N0005-3, and N0005-4.

**Response N0005-6:**

DWR has prepared the DEIR to evaluate the Proposed Project and alternatives. Comment letters received by a lead agency during development of a DEIR (usually during scoping) are not typically included in the draft document. However, DWR distributed Scoping Document 1 (DWR, September 2002), which included a summary of all comments, including those received from equestrians, related to stakeholder concerns and issues associated with the relicensing of the Oroville Facilities. This scoping document is available for review on the Oroville Facilities relicensing website (<http://orovillere relicensing.water.ca.gov/>).

The Proposed Project includes several equestrian enhancements, which were developed through the scoping process that considered input from many recreation users, including equestrians. DWR completed Interim Projects prior to FERC license filing that included improvements to the Saddle Dam trailhead and the Loafer Creek Equestrian Camp. Additional equestrian-driven improvements are part of the Proposed Project and can be reviewed in the DEIR, Section 3.3, page 3.3-31.

**Response N0005-7:**

The history and tradition of trail development at the LOSRA is outside the scope of the EIR. Recreation needs at FERC Project No. 2100 were detailed in SP-R17, Recreation Needs Analysis; the general process by which these technical results were collaboratively evaluated is described in the DEIR, Sections 2.2.2.1 through 2.2.2.4. LOSRA trail users' needs, based on survey results, are addressed in the DEIR, Section 4.7, pages 4.7-24 and 4.7-25.

**Response N0005-8:**

Please see Response to Comment N0005-6. Contrary to the commenter's assertion that new equestrian facilities are absent from the SA, numerous facilities are proposed as part of the RMP. In advance of license issuance, DWR also completed interim recreation projects (described in the DEIR, Section 3.3.1.1) that included improvements to the Saddle Dam trailhead and the Loafer Creek Equestrian Camp. Additional improvements are part of the Proposed Project and can be reviewed in the DEIR on page 3.3-31.

**Response N0005-9:**

Please see Response to Comment N0005-2 above.

**COMMENTS FROM THE LAKE OROVILLE BICYCLIST ORGANIZATION**

August, 19, 2007

Mr. Henry "Rick" Ramirez  
Program Manager, Oroville Facilities Relicensing  
California Department of Water Resources  
P.O. Box 942836  
Sacramento, CA 94236-0001

Comments on DWR EIR

I would like to preface my observations on the DEIR with an explanation of why I feel these observations are important.

During the past 5 years, I have seen how seemingly insignificant errors of fact or language can cause major headaches when allowed to become part of an official record.

For that reason, I wish to point out what I believe to be factual errors or language that must be changed in this EIR.

Pg:

3.2-18. Second paragraph, first sentence:

*"The Dan Beebe Trail is a 14.3-mile trail that is for equestrian and hiking use."*

The language used may inappropriately disallow changes to allowed uses of this trail.

Please add, "currently used" so the sentence reads:

*"The Dan Beebe Trail is a 14.3-mile trail that is currently used for equestrian and hiking use."*

Third paragraph, second sentence:

*"It was constructed ... has portions considered multi-purpose"*

Recent FERC rulings (August 17, 2004) and Staff recommendations suggest the Brad Freeman Trail should be closed to use by horses.

Third paragraph, last sentence:

*"The Brad Freeman Trail has been used for downhill and cross-country mountain-bicycle races."*

This is not correct, each "cross-country" mountain bike race has been held on the Dan Beebe Trail due to its more desirable singletrack nature.

The two trails (Brad Freeman and Dan Beebe) are very different in characteristics and should not be allowed to be confused as such.

2007 AUG 21 AM 1:43  
N0006-1  
N0006-2

N0006-3

3.2-25: Saddle Dam Day Use Area

"This primarily equestrian-use trailhead is located in the southeastern portion of the project area."

This is not accurate; the trailhead sees more use for fishing and swimming.

N0006-4

3.3-29:

Figures not correct as listed.

Add "and others as appropriate" to last sentence.

N0006-5

3.3-30: Paved trail exist except under table Mt Bridge.

N0006-6

3.3-32: Re open Burma access, two alternatives here.

N0006-7

4.7-4: Add North fork

N0006-8

4.7-9: Add "Currently" and "non-motorized" to last paragraph.

There are several ...are currently limited... the Bidwell Canyon Trail (4.9 miles) currently for ... Dan Beebe Trail (14 miles) currently for... The Potters Ravine ... is available to all non-motorized user types...

N0006-9

4.7-10: First sentence; change "primarily" to often.

N0006-10

Third paragraph; change "un-crowded" to Scenic.

N0006-11

4.7-11: First full sentence add "currently designated";

The 14-mile Dan Beebe Trail is currently designated an equestrian ...

N0006-12

4.7-12: One trail, not two.

N0006-13

5.7-22: Trail will be open except Roy Rogers.

N0006-14

Submitted by;

Lyle Wright

Lake Oroville Bicyclist Organization

Po Box 619

Oroville Ca.

## **RESPONSES TO COMMENTS FROM THE LAKE OROVILLE BICYCLIST ORGANIZATION**

### **Response N0006-1:**

The comment is noted and the requested change has been made. Please see Chapter 2.0, Section 3.2.4.1 of this FEIR for revisions to the DEIR text. DWR's primary justification for this change was recognition that this trail had at some junctures been used by other user groups in the past, and thus this change imparts greater accuracy to the FEIR.

### **Response N0006-2:**

Trails within the FERC Project Boundary are currently designated to be completely consistent with the current Amended Recreation Plan (1993). DWR has provided clarifications to the description of existing trails within the FERC Project boundary in Chapter 2.0, Section 3.2.4.1, of this FEIR for revisions to the DEIR text.

### **Response N0006-3:**

Please see Chapter 2.0, Section 3.2.4.1, of this FEIR for corrections to the DEIR text.

### **Response N0006-4:**

SP-R9, Existing Recreation Use, does not discern proportions of different user groups using this trailhead. However, DWR field staff and surveyors concur with the comment. The words "primarily equestrian-use" have been struck from this sentence in the FEIR, and the paragraph has been modified to provide additional description. Please see Chapter 2.0, Section 3.2.4.1 of this FEIR for revisions to the DEIR text.

### **Response N0006-5:**

On page 3.3-29, the DEIR incorrectly referenced Figure 3.2-3. The correct reference to the trails maps should have directed the reader to Figures 3.2-4 and 3.2-4a. This error has been corrected in Chapter 2.0, Section 3.3.2.3, of this FEIR.

### **Response N0006-6:**

DWR acknowledges that some paved trail exists in this area. To add clarity of intent, DWR has changed the word from "constructs" to "completes." Please see Chapter 2.0, Section 3.3.2.3 of this FEIR for revisions to the DEIR text.

### **Response N0006-7:**

The intent of this comment is not clear. There is no mention of Burma Road on Page 3.3-32 of the DEIR. While your comment does not raise issues or concerns appropriate

to the environmental analysis in the DEIR and thus no further response is necessary, your comment is a part of the permanent record for this Project and has been forwarded to decision makers for consideration.

**Response N0006-8:**

DWR interprets this comment as suggesting that a "north fork trailhead" be added to the "Trails and Trailheads" section of Table 4.7-1. By convention, trailheads of trails that commence from developed recreation facilities/areas are not included on this list. The beginning of the Potter's Ravine Trail, presumed to be the subject of the comment, is accessed from the Spillway recreation area. Consistent with convention, DWR has added language to the description of the Spillway area. Please see Chapter 2.0, Section 3.2.4.1, of this FEIR for revisions to the DEIR text.

**Response N0006-9:**

DWR has made the suggested changes in the FEIR, for the reasons described in Response to Comment N0006-1. Please see Chapter 2.0, Section 4.7.2.2, of this FEIR for revisions to the DEIR text.

**Response N0006-10:**

Please see Chapter 2.0, Section 4.7.2.2 of this FEIR for revisions to the DEIR text. Also see Response to Comment N0006-4.

**Response N0006-11:**

The language provided in the DEIR on page 4.7-10 is based on Relicensing Studies that noted that the Diversion Pool is relatively "uncrowded" and this language remains unchanged.

**Response N0006-12:**

DWR has made the suggested change in the FEIR, for the reasons described in Response to Comment N0006-1. Please see Chapter 2.0, Section 4.7.2.2, of this FEIR for revisions to the DEIR text.

**Response N0006-13:**

DWR presumes that the comment refers to the top paragraph on Page 4.7-12 of the DEIR, describing trail alignments and designation at Thermalito Forebay. DWR considers the concrete walk through the North Forebay picnic area to be part of a "paved loop," and recognizes that it is not part of the Brad Freeman Trail. For this reason, two discrete (though partially overlapping) trail routes were accurately described.

**Response N0006-14:**

DWR presumes that this comment refers to the top paragraph on DEIR page 5.7-22. Please see Chapter 2.0, Section 5.7.4, of this FEIR for revisions to the DEIR text.

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**COMMENTS FROM FRIENDS OF THE RIVER,  
THE SIERRA CLUB, AND THE SOUTH YUBA RIVER CITIZENS LEAGUE**



Mr. Henry M. Ramirez  
Manager, Oroville Facilities Relicensing Program  
1416 Ninth Street, Room 1155  
Sacramento, CA 95814

August 20, 2007

Re: Joint comments of Friends of the River, Sierra Club, and South Yuba River Citizens League on Oroville Facilities Relicensing, FERC Project 2100, draft EIR

We note that no alternative in the Oroville Dam relicensing draft EIR includes physical changes to Oroville Dam to ensure that Army Corps of Engineers-required floodwater operations take place confidently and without significant disruption and damage to project lands and facilities. Indeed, the issue of floodwater operations in general is not addressed in the draft EIR.

N0007-1

This deficiency needs to be corrected by development of these alternatives and recirculation of the draft EIR. As always, we would welcome the opportunity to work with the Department to develop these alternatives.

This is not a new issue to the Department — nor should it be a trivial issue given its much-touted Flood-Safe California project. And given the Department's supposed major focus on Central Valley floodwater management, the failure to address the deficiencies of the Department's own major flood-control dam is truly astonishing — and needs to be reversed.

The Department has received many filings objecting to the Department's position that physical changes required to support Corps-required floodwater management operations are not properly part of the FERC relicensing process. We attach some of our previously filed detailed and substantive comments that have been filed with the Department concerning this matter.

Other than unsupported and non-responsive conclusionary statements, neither the Department, nor its contractors, nor the Commission staff have provided any detailed and substantive response to why these issues should not be required to be addressed in this relicensing.

N0007-2

But more importantly, we fail to understand why the Department should not be embracing this important opportunity to ensure that its dam and operational programs associated with the dam truly contribute to a Flood-Safe California.

N0007-3

FRIENDS OF THE RIVER

By \_\_\_\_\_/s/\_\_\_\_\_  
Ronald M. Stork  
Friends of the River  
915 20<sup>th</sup> Street  
Sacramento, CA 95814  
Phone: (916) 442-3155 ext. 220  
Fax: 916 442-3396  
E-mail: rstork@friendsoftheriver.org

SIERRA CLUB

By \_\_\_\_\_/s/\_\_\_\_\_  
Allan Eberhart  
24084 Clayton Road  
Grass Valley, CA 95949-8155  
Phone: (530) 268-1890  
E-mail: vallialli@wildblue.net

SOUTH YUBA RIVER CITIZENS  
LEAGUE

By \_\_\_\_\_/s/\_\_\_\_\_  
Jason Rainey  
Executive Director  
South Yuba River Citizens League  
216 Main Street  
Nevada City, CA 95959  
Phone: (530) 265-5961 ext 207  
Fax: (530) 265-6232  
E-mail: jason@SYRCL.org

## **RESPONSES TO JOINT COMMENTS FROM FRIENDS OF THE RIVER, THE SIERRA CLUB, AND THE SOUTH YUBA RIVER CITIZENS LEAGUE**

### **Response N0007-1:**

The FERC relicensing process was conducted and this EIR developed for the purpose of obtaining a new FERC license to continue operation of the Oroville Facilities hydroelectric plants. The Oroville Facilities have been and will continue to be operated as required by USACE. No significant concerns have been raised by USACE, FERC, the Division of Safety of Dams, or any federally mandated or State-mandated independent reviews regarding Oroville Dam or its appurtenant structures. Recent FERC Part 12 and Division of Safety of Dams inspections have concluded that Oroville Dam and appurtenant structures are “well maintained and operated”<sup>1</sup> and “judged satisfactory for continued use”<sup>2</sup>, respectively.

It should also be noted that the DEIR includes significant discussions on flood management. The flood management operations and benefits of the existing Oroville Facilities are explained in various sections of the DEIR (see Sections 2.1.3, 3.2.2.6, 4.2.1.1, 4.2.1.3, and 4.15.4) and would apply equally to all of the alternatives considered. The alternatives were analyzed against Existing Conditions, including the existing methods of flood operation. In Section 5.1.4.1 the DEIR has findings related to the attenuation of peak flood flows. Further, in Section 5.2.1.4 the DEIR used the significance threshold provided in the State CEQA Guidelines to conclude that there are no measures that have the potential to substantially alter an existing drainage pattern of the site or area, including alteration of the course of a stream or river, or a substantial increase in the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. SA Article A106, Riparian and Floodplain Improvement Program, is the exception due to the possibility for planned flooding of previously disconnected floodplain during implementation. None of the alternatives analyzed modify the flood operations component of the Oroville Facilities. Modifications to the flood control operations, including physical changes to Oroville Dam for purposes of flood management, are outside the purview of FERC and DWR because only USACE has the authority to change them.

### **Response N0007-2:**

As described in SA Article A130, Flood Control, the Settling Parties agree that DWR will operate the Project in accordance with the rules and regulations prescribed by the Secretary of the Army pursuant to Section 204 of the Flood Control Act of 1958. This is consistent with DWR’s current license for the Project.

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<sup>1</sup> FERC, Oroville Dam FERC Part 12 Report 5 5.5 (Mar. 2005).

<sup>2</sup> Division of Safety of Dams (DSOD), Inspections of Dam Reservoir in Certified Status, Periodic Evaluations of Oroville Dam, dated Feb. 8, 2005; May 17, 2005; Oct. 12, 2005; Jan. 20, 2004; June 19, 2003; Jan. 29, 2002; June 18, 2002; Nov. 18, 2002; and June 13, 2001.

While FERC typically has jurisdiction over flood control operations as part of its licensing authority under Part 4 of the Federal Power Act, 16 United States Code 791 et seq., Congress specifically granted exclusive jurisdiction over flood control operations at the Oroville Facilities to the Secretary of the Army. In Section 204 of the Flood Control Act of 1958 (Public Law 85-500, 72 Stat. 297), an appropriation was made to contribute to the construction cost of Oroville Dam and Reservoir. This appropriation was made contingent upon an agreement between the State of California and the Department of the Army for operation of the dam for flood control benefits.

Subsequent to the Flood Control Act of 1958, the Federal Power Commission issued an Order Amending License for Oroville on January 22, 1964. In that Order, Article 50 was added to the license, and provides that “operation of the project in the interest of flood control as provided in Article 32 of the license shall be in accordance with the rules and regulations to be prescribed by the Secretary of the Army pursuant to Section 204 of the Flood Control Act of 1958.”<sup>3</sup>

The Secretary of the Army promulgated regulations as required by the Flood Control Act.<sup>4</sup> These regulations prescribe the responsibilities and general procedures for flood control applicable to federal authorized flood control and/or navigation storage projects, and to non-federal projects that require the Secretary of the Army to prescribe regulations as a condition of the license, permit or legislation during the planning, design and construction phases, and throughout the life of the project.<sup>5</sup>

### **Response N0007-3:**

DWR appreciates the interest in the Oroville Facilities Relicensing Project. While the commenter does not raise issues or concerns appropriate to the environmental analysis in the DEIR and thus no further response is necessary, the comment is a part of the permanent record for this Project and has been forwarded to decision makers for consideration.

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<sup>3</sup> Article 32 states that “[t]he Licensee shall collaborate with the Department of the Army in formulating a program of operation for the project in the interest of flood control.”

<sup>4</sup> See 33 Code of Federal Regulations (CFR) 208.11.

<sup>5</sup> In addition, 33 CFR 209.220(b) provides as follows: Use of storage allocated for flood control or navigation at reservoirs constructed wholly or in part with federal funds. Regulations prescribed by the Secretary of the Army in accordance with section 7 of the Flood Control Act of December 22, 1944 (58 Stat. 890; 33 USC 709) are for the purpose of coordinating the operation of the flood control features of reservoirs constructed wholly or in part with federal funds and other flood control improvements to obtain the maximum protection from floods which can reasonably be obtained with the proper operation of all flood control improvements. Proposed regulations are determined by the District Engineer in cooperation with the persons responsible for the maintenance and operation of the reservoir involved after a detailed study of the flood problems and the characteristics of the reservoir project. The proposed regulations are forwarded by the District Engineer through the Division Engineer to the Chief of Engineers for consideration of the Secretary of the Army. When approved by the Secretary of the Army, these regulations are published in part 208 of this chapter.

**COMMENT FROM THE PLANNING AND CONSERVATION LEAGUE FOUNDATION**

*Chairman*  
David Hirsch  
*Vice Chairman*  
Ralph B. Perry III  
*Secretary-Treasurer*  
Daniel S. Frost



*Trustees*  
Coke Hallowell  
Gerald H. Meral  
Armando Rodriguez

August 20, 2007

Mr. Henry M. Ramirez  
Department of Water Resources  
Manager, Oroville Facilities Relicensing Program  
1416 Ninth St., Room 1155  
Sacramento, CA 95814

**RE: Draft Environmental Impact Report for Oroville Facilities Federal Energy Regulatory Commission (FERC) Project No. 2100**

Dear Mr. Ramirez:

The Planning and Conservation League appreciates the opportunity to comment on the Draft Environmental Impact Report for the Oroville Facilities, FERC Project No. 2100.

In our comments, we ask that the Department disclose to the Federal Energy Regulatory Commission how they are forecasting to adjust to the significant changes in the state water operations that will occur during the 50-year license period due to 1) the likely change in protective measures required for threatened and endangered species in the San Joaquin/Sacramento Bay-Delta, and 2) the observable shifts in California hydrology due to effects of regional climate change. As the largest purveyor of water in the state, the Department has begun adapting the modeling of future SWP deliveries to climate change and the Commission's full understanding of those projected changes is integral to their ability to authorize a permit for this project that will enable operations at the Oroville facilities to prepare for intensifying flood events and sustain viable fisheries throughout the Feather River.

Our comments below explain that, because both of these issues will have foreseeable impacts on this proposed project, they require analysis by the Department under the California Environmental Quality Act. Though some of the operational adaptations that will become necessary to respond to these issues are outside the scope of the FERC licensing process, the department should fully disclose to the Commission modeling of the proposed project's ability to adapt to these likely SWP changes and provide flexible flood protection and ample cold water flows for river habitat and species.

In addition to the concerns stated above, our organization concurs with comments previously submitted to your offices and the Federal Energy Regulatory Commission by Friends of the River et al, California Sportfishing Alliance, and Plumas County. We incorporate these letters by reference.

1107 9th Street, Suite 360, Sacramento, CA 95814 Phone: 916-444-8726 Fax: 916-448-1789  
Website: [www.PCLFoundation.org](http://www.PCLFoundation.org) Email: [pclmail@pcl.org](mailto:pclmail@pcl.org) A member of Earth Share California  
This letter is printed on 60% recycled fiber, 30% post consumer waste, acid free paper.

2007 AUG 21 PM 4:23

N0008-1

### **1. Endangered Species Act Protection under New Biological Opinions**

In preparing the conditions for the re-licensing for the Oroville Facilities, the Federal Energy Regulatory Commission should consider that significant changes in State Water Project operations could occur over the permit life due to pending lawsuits on California Endangered Species Act (ESA) compliance in California Eastern District Court. At the request of the court, United States Fish and Wildlife Service, supported by the Department of Water Resources, has proposed interim remedy actions to minimize and prevent adverse impacts to delta smelt and its habitat from SWP and CVP operations pending completion of the USFWS biological opinion in August 2008. These recommended protective measures, outlined in the Delta Smelt Action Matrix for Water Year 2008, suggest the scale of required changes that the 2008 biological opinion will likely prescribe for SWP water delivery operations, well into the Oroville Facilities' renewed 50-year permit period.

In addition to other suggestions outline in the Delta Smelt Action Matrix for Water Year 2008, the Department recommends reductions in SWP deliveries between eight percent (91 taf) to 27 percent (305 taf) in a dry year or between 8 percent (252 taf) to 31 percent (940 taf) in an average year (see attachment *NRDC v. Dirk Kempthorne*, Declaration of John Leahigh in Support of the California Department of Water Resources' Proposed Interim Remedy).

The DEIR does not, but should analyze how such operational changes, which are undoubtedly foreseeable within the permit duration, will affect the proposed project's capacity to provide adequate flood protection, satisfy fishery temperatures, and maintain the reservoir's cold water reserves. In particular, the DEIR should demonstrate whether the capped sum of \$15,000,000 would be adequate to fully mitigate potential fish loss due to future operational changes within the range of reasonable flexibility. The DEIR should discuss whether or not the proposed project or alternatives will need to consider additional operative changes to prevent adverse impacts to habitat and species between the Oroville facilities and the point of inflow in the Delta. The DEIR should analyze these projections using the specifics remedy recommendations outlined by DWR in the attachment: *NRDC v. Dirk Kempthorne*, "California Department of Water Resources' Memorandum of Points and Authorities in Support of an Interim Remedy."

N0008-2

N0008-3

N0008-4

N0008-5

### **2. Adaptations to Climate Change are Reasonably Foreseeable Actions under CEQA**

CEQA requires a project's EIR to identify and discuss all potentially significant adverse environmental impacts resulting from a proposed project.<sup>1</sup> The law also defines "significant impacts" as both direct and indirect consequences from implementing the project. Where an indirect consequence is foreseeable, the existence of a causal chain between project and impact does not excuse the agency from discussing the impact.<sup>2</sup> As discussed in the following paragraph, the unavoidable impacts of climate change on the region are not only foreseeable but

<sup>1</sup> See *Sierra Club*, 7 ACl. 4<sup>th</sup> at 1229.

<sup>2</sup> 14 Cal. Code Regs. .

unavoidable. Therefore, any adverse environmental impact resulting from the project's failure to adequately respond to these physical changes in the surrounding environment through adaptations in Oroville operation would be considered a foreseeable significant impact under CEQA and must be identified in this EIR. The analysis of future project operations should include a full range of these climate change scenarios based on the most recent models and operational plans to mitigate for these impacts.

N0008-6

N0008-7

A growing number of legal experts are publishing justification for the consideration of climate change as a significant impact under CEQA and explain how the review process should analyze whether proposed projects will both contribute to the public and environmental health implications of climate change. In the Department's analysis of such impacts, please refer to the attachment as one example of this emerging legal documentation: "Climate Change and the California Environmental Quality Act," by Dave Owen, 2007.

The Baseline or Environmental Setting IS a Changing Climate

The baseline conditions described in the DEIR document the physical environmental conditions of the project's region without the influence of the proposed project. These are the conditions to which future environmental impacts from project construction and activities can be compared. Past judicial findings have argued that the documented baseline provided in the CEQA review should not be inflexible. "Environmental conditions may vary from year to year and in some cases it is necessary to consider conditions over a range of time periods."<sup>3</sup> This consideration is particularly necessary for a 50-year FERC re-license whose baseline will be a changing climate. But this DEIR analysis fails to consider how the unavoidable climatic and hydrological trends of climate change will affect this project's baseline throughout the fifty years.

N0008-8

Foreseeable Climate Change Impacts

This DEIR analysis should consider the impact from changes in regional climate because the predicted outcomes over the entirety of the 50-year permit period are not speculative in nature, as suggested by the DWR comments in their *Guide to the Draft Environmental Impact Report*:

N0008-9

"It is questionable whether climate change is a reasonably foreseeable action in the CEQA context, partly because of the uncertainty and speculative nature of predicted outcomes."

In fact more than 2,500 climate experts, who signed the Intergovernmental Panel on Climate Change (IPCC) 2007 findings, insist that a continued rise in global temperatures over the next half-century is irreversible, due to greenhouse gas production since the Industrial Age (mid-1800s). Observed values of a 0.2°C per decade rise in global atmospheric temperature are

<sup>3</sup> *Save Our Peninsula, supra*, 87 Cal.App.4<sup>th</sup> at pp. 125-126

consistent with these projections, first made in 1990.<sup>4</sup> The historical fluctuations in California's climate and hydrology will intensify over the next fifty years due to these unavoidable increases in global atmospheric temperatures. As pointed out in the DWR's 2006 *Progress on Incorporating Climate Change into Management of California's Water Resources*, climate change would result in earlier pulse inflows to reservoirs providing flood control and water supply services, such as Oroville and reductions in cold water pool availability.<sup>5</sup> For a more expansive list of both international and national scientific papers from 2000 to 2006 on climate change implications, refer to the Natural Resource Defense Council's "*Global Warming Science: An Annotated Bibliography*."<sup>6</sup> We incorporate this documentation of the current observable trends resulting from a changing climate by reference and footnote #6.

Therefore, it is obligatory under CEQA law for this DEIR to consider the impacts of these new trends on (A) Feather River water temperature objectives, (B) Oroville Reservoir operations, including water levels, joint flood management, and future water supply operations provisions of the 50-year Oroville FERC license. DWR has found that "California will need to search for physical, regulatory, and operational flexibilities in the SWP and CVP systems to maintain project delivery capabilities" in a changing climate. Accordingly this DEIR should analyze possible operational possibilities to meet FERC requirements under the range of hydrologic scenarios caused by the impacts of climate change. Specifically, all project operations and alternatives should be analyzed under a range of forecasted atmospheric temperature scenarios and projected fifty years into the future, based on historic and continuing trends in runoff and river temperature. Specifically, this range should include the hydrological impacts on the Feather River system and Oroville operations under a 0.1° - 0.2°C per decade rise over the next fifty years.<sup>7</sup>

N0008-10

#### (A) Feather River Temperature Objectives

As shown in Figure 1 below, climate change scenarios indicate that average annual river temperatures throughout the Sacramento River System, and specifically the Feather River temperatures are rising.<sup>8</sup> The DEIR should project these trends throughout the 50-year permit time period to analyze how the proposed operational changes will fulfill water temperature objectives required to support river fisheries. Analysis should include how factors of diminished Sierra snowpack, hotter reservoir inflows and outflows and possible loss of reservoir storage due to seasonal shifts in reservoir inflow will impact cold water pool reliability and future temperature objective requirements.

N0008-11

<sup>4</sup> Intergovernmental Panel on Climate Change - Working Group I. *Climate Change 2007:Fourth Assessment Report*. 2007.

<sup>5</sup> California Department of Water Resources. *Progress on Incorporating Climate Change into Management of California's Water Resources: Technical Memorandum Report*. July 2006.

<sup>6</sup> <http://www.nrdc.org/globalWarming/fgwscience2006.asp>

<sup>7</sup> Intergovernmental Panel on Climate Change - Working Group I. *Climate Change 2007:Fourth Assessment Report*. Summary for Policymakers. 2007, pg. 1.

<sup>8</sup> California Department of Water Resources. *Progress on Incorporating Climate Change into Management of California's Water Resources: Technical Memorandum Report*. July 2006. pg. 4-50.

**Table 4.24 Average Water Temperatures along the Sacramento River**

	Study 1: Base		Study 2: GFDL A2		Study 3: PGM A2		Study 4: GFDL B1		Study 5: PGM B1	
	Average 1928-1934									
American River	59.8	60.5	62.9	63.7	61.4	62.2	62.6	63.4	60.7	61.5
Balis Ferry	52.3	53.9	54.6	56.5	53.8	55.7	54.4	56.1	52.9	54.2
Bend Bridge	53.3	54.7	55.4	57.1	54.6	56.4	55.2	56.7	53.8	55.0
Butte City	57.1	58.3	59.5	61.0	58.5	59.9	59.2	60.6	57.8	58.9
Cokusa Basin Drain	58.4	60.4	62.2	63.3	61.0	62.0	61.9	63.0	60.3	61.3
Feather River	58.8	60.6	62.7	63.7	61.3	62.2	62.4	63.3	60.6	61.5
Freeport	59.9	60.7	63.0	63.8	61.5	62.3	62.7	63.6	60.9	61.6
Jelty's Ferry	53.1	54.5	55.2	56.9	54.4	56.2	55.0	56.5	53.6	54.7
Keswick	50.8	52.2	53.0	54.8	52.1	54.0	52.8	54.5	51.2	52.5
Keswick Above Spring Creek	50.8	52.3	53.2	55.1	52.3	54.3	53.1	54.8	51.4	52.6
Red Bluff	53.8	55.3	56.0	57.7	55.2	56.9	55.8	57.3	54.4	55.6
Shasta	49.8	51.4	52.1	54.0	51.3	53.2	52.0	53.7	50.5	51.6
Vina	54.8	56.1	57.0	58.6	56.2	57.7	56.8	58.2	55.4	56.5
Wilkins Slough	58.4	59.6	61.1	62.4	60.0	61.2	60.8	62.0	59.2	60.3

California Department of Water Resources. Progress on Incorporating Climate Change into Management of California's Water Resources: Technical Memorandum Report, July 2006, pg. 4-48.

Figure 1. Average water temperature in 1928 and 1934. Samples taken from five different key locations along the Sacramento River System. The Feather River shows a consistent average rise in temperature of 1 degree over the seven years throughout the study area.

*(B) Oroville Reservoir Operations*

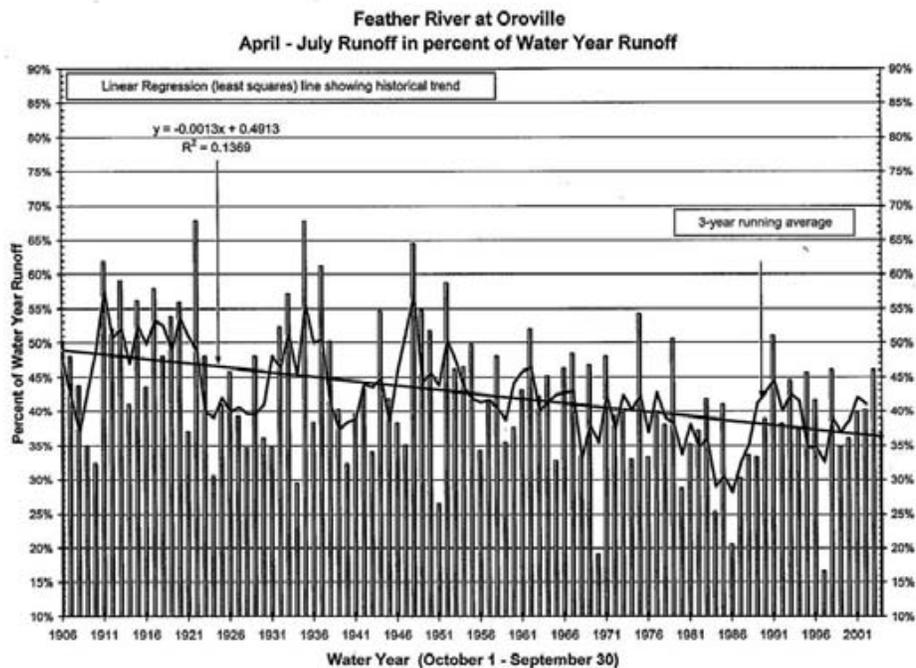
In anticipation of continuing trends in earlier seasonal snowpack runoff, the DEIR should model the project's reservoir operations and all alternatives under the range of temperature increase scenarios. Such analysis should quantify climate change effects on the ability of the Oroville Reservoir to provide adequate flood control and water supply, while completely maintaining the cold water pools available to sustain fishery habitat through the water year, even in the event of a flood emergency. DWR should also analyze whether the level of flood management available under a range of scenarios will support the standards for adequate flood protection downstream. Adaptive strategies necessary to decrease future flood risk evident in climate change model forecasts must be developed by projecting historical trends over a fifty-year span. (Figure 2)

N0008-12

In particular, this DEIR does not include any project alternatives that consider the option of constructing additional infrastructure, such as an auxiliary spillway, or including other operational changes necessary to allow facility flexibility in providing emergency flood protection. It is necessary for this DEIR to provide a project alternative(s) that considers revised flood-control operations in response to the observable seasonal shift and volume of annual flooding peaks, which climate change will exacerbate over the next 50 years. In order for the Commission to completely assess whether the Oroville facilities will have the structural capacity to fulfill both necessary and emergency flood functions under the regional climate change trends of increasing snow-pack reduction and increased winter flooding, the Department should investigate the adequacy and structural integrity of Oroville Dam's ungated auxiliary spillway and take all necessary actions to mitigate for any identified deficiencies.

N0008-13

N0008-14



California Department of Water Resources. Department of Flood Management. Bulletin-160.

Figure 2. Percent Water Runoff at Oroville throughout 20<sup>th</sup> century.

Lastly, if the Department assesses the wrong baseline or incompletely considers the significant impacts that climate change will cause in association to a project, the lead agency could be susceptible to future litigation on the grounds that climate change was inadequately considered during the CEQA environmental review process. A growing frequency of California litigation, including the lawsuit the State Attorney General filed against the City of San Bernardino in April 2007<sup>9</sup>, suggests that the omission of the consideration of climate change from CEQA environmental documentation increases a project's vulnerability to litigation.

In addition to the concerns stated above, our organization concurs with comments previously submitted to your offices and the Federal Energy Regulatory Commission by Friends of the

<sup>9</sup> *People of the State of California ex rel. Attorney General Edmund G. Brown v. County of San Bernardino*, Case No. SS 700329 (San Bernardino County Superior Court) (filed April 12, 2007)

River et al, California Sportsfishing Alliance, and Plumas County. We incorporate these letters by reference.

The Planning and Conservation League remains concerned that the DEIR analysis of the proposed project and alternatives is flawed in its failure to consider the large scale changes in the State Water Project, both operational due to changing management and hydrological due to climate change, already in motion. This myopic analysis could fail to capture significant impacts on river habitat and species in the Sacramento River, the Feather River and the Bay Delta. We urge the Department to disclose your forecast modeling of how future ESA requirements and climate change trends will be influencing the operation of the SWP, so that FERC can fully consider how those changes will impact Oroville's FERC license provisions for the next half-century.

N0008-15

Sincerely,



Charlotte Hodde  
Water Policy Specialist, Planning and Conservation League

Attachments:

*Climate Change and the California Environmental Quality Act*, by Dave Owen, 2007.

*NRDC v. Dirk Kempthorne*, Declaration of John Leahigh in Support of the California Department of Water Resources' Proposed Interim Remedy.

*NRDC v. Dirk Kempthorne*, "California Department of Water Resources' Memorandum of Points and Authorities in Support of an Interim Remedy.

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## **RESPONSES TO COMMENTS FROM THE PLANNING AND CONSERVATION LEAGUE FOUNDATION**

### **Response N0008-1:**

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change and The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

### **Response N0008-2:**

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change and The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

### **Response N0008-3:**

It is not expected that there would be any significant fish loss due to future operational changes at the Oroville Facilities. However, it should be noted that the \$15,000,000 figure referred to in this comment is an amount agreed upon by the settling parties in the draft Habitat Expansion Agreement (HEA) included in the SA. The HEA was negotiated with and agreed upon by both the federal and State responsible fisheries agencies to fully mitigate impacts on steelhead and spring-run Chinook salmon for the ongoing upstream fish passage blocked by various facilities on the Feather River. The HEA spells out specific remedies subject to approval by NMFS such that the fisheries resources will be protected to their satisfaction. In complement to the HEA, the SA also includes several habitat enhancement plans and programs, including but not limited to SA Articles A101, Lower Feather River Habitat Improvement Plan; A102, Gravel Supplementation and Improvement Program; A103, Channel Improvement Program; A104, Structural Habitat Supplementation and Improvement Program; A105, Fish Weir Program; and A108, In-stream Flow and Temperature Improvement for Anadromous Fish.

### **Response N0008-4:**

The commenter identifies an issue that is outside the scope of the DEIR. There is no change in net water releases from the Oroville Facilities under any of the alternatives. Flow change impacts of the Proposed Project and FERC Staff Alternatives are limited to the LFC and are addressed in the DEIR. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

### **Response N0008-5:**

Judge Wanger, in determining the remedy for *NRDC v. Dirk Kempthorne*, has not included any changes in operations of the Oroville Facilities. Please see in this FEIR

Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

**Response N0008-6:**

Modeling studies performed to support the DEIR are sufficient to study future operations under a wide variety of hydrologic conditions and assumptions. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for additional information relevant to this comment.

**Response N0008-7:**

Modeling studies performed to support the DEIR are sufficient to study future operations under a wide variety of hydrologic conditions and assumptions. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for additional information relevant to this comment.

**Response N0008-8:**

The DEIR uses the appropriate baseline for the analysis, which for the purpose of the DEIR is defined by the issuance of the Notice of Preparation. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for additional information relevant to this comment.

**Response N0008-9:**

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information relevant to this comment.

**Response N0008-10:**

Based on what is currently known, a discussion of regional effects of future climate change on specific resources in the Project area is presented in the Cumulative Impacts section (Section 6.2) under the appropriate resource subheadings of the DEIR. For the purpose of comparing alternatives for the DEIR, it would be speculative to further analyze potential future operations under purely hypothetical climate change scenarios beyond the current level of analysis. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, and The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

**Response N0008-11:**

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information relevant to this comment.

**Response N0008-12:**

For the purpose of evaluating impacts of the Proposed Project and comparing alternatives for the DEIR, it would be speculative to further analyze potential future operations under purely hypothetical climate change scenarios beyond the current level of analysis. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for additional information relevant to this comment.

**Response N0008-13:**

As indicated in the DEIR, Section 3.2.2.6, page 3.2-10, and corroborated by FERC in its FEIS, USACE has jurisdiction over flood management operations at Lake Oroville, and this is not subject to, or affected by, the Relicensing process. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for additional information relevant to this comment.

**Response N0008-14:**

No significant concerns have ever been raised by FERC, the Division of Safety of Dams, or any federally mandated or State-mandated independent reviews regarding the adequacy, stability, or structural integrity of the emergency spillway. Past FERC Part 12 and Division of Safety of Dams inspections have concluded that Oroville Dam and appurtenant structures are "well maintained and operated"<sup>1</sup> and "judged satisfactory for continued use"<sup>2</sup>, respectively. In fact, reports of inspections conducted at the high-water pool, with water on the emergency spillway weir, state that the "emergency spillway weir remains in good condition"<sup>3</sup> and that "the gate structure, the weir, chute, and emergency weir were all without major distress."<sup>4</sup> Studies undertaken by DWR have determined that the Oroville Facilities can safely pass the Probable Maximum Flood (PMF) inflow. As stated in Section 4.2.1.2 of the DEIR, flood operations are under the purview of USACE and are not subject to FERC jurisdiction as related to Project No. 2100, and therefore no changes to flood operations are considered in the Proposed Project and do not require analysis in this EIR.

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<sup>1</sup> FERC, Oroville Dam FERC Part 12 Report 5 5.5 (March 2005).

<sup>2</sup> Division of Safety of Dams (DSOD), Inspections of Dam Reservoir in Certified Status, Periodic Evaluations of Oroville Dam, dated February 8, 2005; May 17, 2005; October 12, 2005; January 20, 2004; June 19, 2003; January 29, 2002; June 18, 2002; November 18, 2002; and June 13, 2001.

<sup>3</sup> DSOD, Inspection of Dam Reservoir in Certified Status, Periodic Evaluation of Oroville Dam (May 17, 2005); see also DSOD, Inspection of Dam Reservoir in Certified Status, Periodic Evaluation of Oroville Dam (June 19, 2005) ("The emergency spillway weir remains in good condition. Where water was against the weir, minor seepage was observed along the downstream toe and at the construction and lift joints. The seepage is said to be decreasing as the reservoir level goes down.").

<sup>4</sup> DSOD, Inspection of Dam Reservoir in Certified Status. Periodic Evaluation of Oroville Dam (June 7, 1993).

**Response N0008-15:**

The commenter identifies an issue related to operation of the SWP that is outside the scope of the EIR. The DEIR appropriately considers the potentially significant impacts of the Proposed Project as it relates to riverine habitat and aquatic species. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change and The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

**COMMENTS FROM THE JOINT WATER DISTRICTS**

**MINASIAN, SPRUANCE,  
MEITH, SOARES &  
SEXTON, LLP**

ATTORNEYS AT LAW  
A Partnership Including Professional Corporations

1681 BIRD STREET  
P.O. BOX 1679  
OROVILLE, CALIFORNIA 95965-1679

Writer's e-mail: [dsteffenson@minasianlaw.com](mailto:dsteffenson@minasianlaw.com)

PAUL R. MINASIAN, INC.  
JEFFREY A. MEITH  
M. ANTHONY SOARES  
DAVID J. STEFFENSON  
DUSTIN C. COOPER

WILLIAM H. SPRUANCE,  
Of Counsel

MICHAEL V. SEXTON,  
OF COUNSEL

TELEPHONE:  
(530) 533-2885

FACSIMILE:  
(530) 533-0197

August 21, 2007

*Via California Overnight*

Henry "Rick" Ramirez  
Program Manager, Oroville Facilities Relicensing  
California Department of Water Resources  
P.O. Box 942826  
Sacramento, CA 94236-0001

Dear Mr. Ramirez:

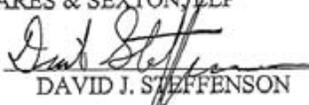
On Monday, August 20, 2007, I sent to you a copy of the Joint Districts' Comments on the Department of Water Resources Draft Environmental Impact Report for the re-licensing of the Oroville Facilities. The Comments refer to the Term Sheet as "Exhibit A", but our original copy, as mailed, did not include Exhibit A.

Please find included in this mailing the Districts Comments with Term Sheet attached as Exhibit A. There were no changes made to the actual Comments from those sent on Monday the 20<sup>th</sup>. We are simply correcting the inadvertent omission of the Term Sheet from the original filing.

Please contact me if you have any questions on this matter.

Sincerely,

MINASIAN, SPRUANCE, MEITH,  
SOARES & SEXTON, LLP

By:   
DAVID J. STEFFENSON

DJS/jg  
Enclosure  
cc: Joint Water Districts (w/encl.)

2007 AUG 22 PM 1:58

CALIFORNIA DEPARTMENT OF WATER RESOURCES

PROJECT NO. 2100 – OROVILLE FACILITIES

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COMMENTS OF THE JOINT DISTRICTS ON THE DEPARTMENT OF  
WATER RESOURCES DRAFT ENVIRONMENTAL IMPACT REPORT

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INTRODUCTION

On May 21, 2007, the California Department of Water Resources (“DWR”) issued its Notice of Completion and Availability of the Draft Environmental Impact Report (“DEIR”) and Notice of Public Meeting for Relicensing of the Oroville Facilities, FERC Project No. 2100 (“Project”). A District representative attended and commented on the DEIR deficiencies at the DWR public meeting held to discuss the DEIR on June 21, 2007, at Kelly Ridge, Oroville, CA. Western Canal Water District, Richvale Irrigation District, Butte Water District, Biggs-West Gridley Water District, and Sutter-Extension Water District (collectively, “Districts”) file these comments on the deficiencies of the DEIR’s treatment of the adverse environmental impact caused by the excessively cold water provided by the Project on the 125,000 acres of rice, approximately, that receive irrigation water from the Thermalito Afterbay.

N0009-1

I. BACKGROUND

The original Oroville Dam Project was intended, in part, to provide temperature control on the Feather River for the benefit of all beneficial uses, including fisheries and

N0009-2

agriculture.<sup>1</sup> From the outset of the Project, the Department recognized the intent to provide beneficial temperatures for rice production.<sup>2</sup> Prior to the current re-licensing proceeding, Department staff acknowledged the intent to deliver suitable water for rice growth.<sup>3</sup> The Project was not intended to artificially reduce water temperatures significantly below pre-project conditions. Quite the contrary, multilevel shutters installed in the intakes to the Hyatt Powerhouse, coupled with the warming capacity of the Thermalito Afterbay, were intended to provide water of a temperature compatible with pre project conditions.

N0009-2  
con't

In contrast to the original intent, Project water delivered has become consistently and steadily colder since the Districts began taking agricultural diversions from the Thermalito Afterbay.<sup>4</sup> The past, and presently continuing, delivery of exceedingly cold-

N0009-3

<sup>1</sup> See attachment "C" to Joint Districts Intervention in the FERC P-2100 proceedings, "Temperature Control of Water From Oroville Reservoir" published by DWR in 1960's attached to letter from Joint Districts to DWR dated March 21, 2000:

"The fields of the Feather River Service Area will be irrigated by releases from Oroville Reservoir. Rice production is important to the economy here; and irrigation water temperature is a critical factor in rice growth.

Cold water released from the depths of Oroville reservoir would harm the rice crop. Even without Oroville Dam, water temperatures of the Feather River are not ideal for rice growth. Their average May through August range has been 52° to 72° F. The University of California has demonstrated that rice plants thrive best when the temperature of irrigating waters ranges from 59° to 77°F. Even within this critical range, temperature fluctuation drastically affects the harvest.

With a proper outlet structure at Oroville Dam, the temperature of releases can be controlled so as to serve the agricultural interest of the area. (pp.11-12.)

<sup>2</sup> See *Id.* at pp.14 "Temperature Range Chart" (graphing the ideal temperature range for the production of rice.)

<sup>3</sup> See Letter from Jim Spence, Project Operations Planning Branch, State Water Project Control Office, to Gary Stern, National Marine Fisheries Service, dated September 14, 1999, p.1 ("Water temperature was an important factor in the design and construction of the Thermalito Afterbay facilities.")

<sup>4</sup> See Chart of "Average Monthly Feather River Outlet Water Temperature" from January 1980-January 2000 attached to Letter from Districts to Director Thomas M. Hannigan dated February 1, 2000, and included with Attachment "A" to Districts' Motion to Intervene in the FERC P-2100 ("Intervention") proceedings; see also Intervention Attachment "J", "Measuring the Effect of Low Water Temperature on Blanking and Grain Yield", Mutters, R.G., Eckert, J.W., Roel, A. & Plant, R.E., Chart of Average July water temperatures of Feather River at Oroville for years 1963-1967, 1970-1975 and 1996-2001 (indicating increasing drop in average minimum temperatures).

water during the irrigation season has inflicted serious damage to rice crops grown in the Feather River Service area.<sup>5</sup>

N0009-4

The Districts have taken every opportunity, both within and outside of the relicensing proceeding, to inform DWR of the damages inflicted and to seek mitigation.<sup>6</sup>

N0009-5

The State Water Resources Control Board recognizes the impact of cold water on rice and the need to mitigate for those impacts.<sup>7</sup> However, in its official filings thus far in the

N0009-6

relicensing proceeding, DWR insists that the Districts have not proven damages caused by cold-water.<sup>8</sup> In its FERC filings, DWR specifically indicated that results of a joint

N0009-7

study between itself and the Districts, in collaboration with the University of California Agricultural Extension Program,<sup>9</sup> were “not yet complete” and that it was “premature to conclude that the study confirms earlier analysis cited by the Districts.”<sup>10</sup>

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<sup>5</sup> See, *inter alia*, Letters from individual farmers attached as Examples #1-6 of Attachment “A” to Intervention.

<sup>6</sup> See, *in general*, FERC Intervention; *see also, specifically*, Letter to Thomas M. Hannigan from Districts Re: DWR Obligations to Deliver Water from Thermalito Afterbay at Temperatures Suitable for Agriculture, dated February 1, 2000 (attachment “A” to Intervention); Letter from Districts to Thomas M. Hannigan Re: DWR Obligations to Deliver Water from Thermalito Afterbay at Temperatures Suitable for Agriculture, dated March 21, 2000 (attachment “C” to Intervention); Letter from Jeff Meith to Rick Ramirez Re: Oroville Project Relicensing, dated November 17, 2000 (attachment “E” to Intervention); Written Comments of Districts at submitted at Public Scoping Meeting October 29, 2001 (attachment “F” to Intervention); Letter from Ted Trimble, manager Western Canal Water District to Michael Spear, Interim Director of DWR, Re: Thermalito Afterbay Water Temperature, dated June 2003 (attachment “H” to Intervention); Letter from Districts to Ralph M. Torres Re: DWR Initial Settlement Agreement, dated May 17, 2004 (attachment “L” to Intervention).

<sup>7</sup> See Letter from Russ J. Kanz, Staff Environmental Scientist, to Magalie R. Salas, dated December 19, 2006 (“After construction of Oroville Dam, water temperatures became less suitable for rice cultivation during the early irrigation season and typically have not met the threshold required for rice production during the summer. Resolution of this issue could require physical changes at the Thermalito Afterbay to control temperature. The impacts and benefits of alternatives to improve water temperature for rice production should be evaluated and included in the final EIS.”)

<sup>8</sup> See, *in general*, Response of the California Department of Water Resources to Recommendations, Terms and Conditions, Prescriptions, and Settlement Comments, in the FERC P-2100 proceeding, pp.75-86 & attachment “C” (“Response”).

<sup>9</sup> Referred to as the “2005 Cold Water Study”.

<sup>10</sup> See *Id.* at p.84.

The results of the 2005 Cold Water Study are now in.<sup>11</sup> The findings demonstrate that cold water is having a substantial adverse impact on average rice yields in affected fields. DWR should officially acknowledge the impact of cold-water agricultural deliveries on rice production. Both the Districts and DWR have negotiated diligently to resolve the cold-water dispute, and are close to reaching a resolution. However, as filed, the DEIR fails to acknowledge that impact and to provide appropriate mitigation.

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N0009-10

II. THE PROPOSED PROJECT ALTERNATIVES WILL LIKELY CAUSE  
SIGNIFICANT IMPACTS TO RICE YIELDS

The DEIR determines that, in the initial new license operating period, reductions in water temperature would likely result in a less than 2° F reduction in water temperature at the agricultural diversions as compared to the Existing Condition.<sup>12</sup> From that determination, it concludes that temperature reduction “would not be expected to substantially decrease rice yield attributable to coldwater exposure, relative to Existing Conditions.”<sup>13</sup> This analysis is deficient for two reasons: (1) it fails to address the cumulative impacts of previous projects as required CEQA Guidelines §15064(h)(1); and (2) relatively minor changes in water temperature can have correspondingly large effects on rice yields.

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First, CEQA Guidelines Section 15064(h)(1) instructs DWR to consider cumulative impacts if the “incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current

N0009-13

<sup>11</sup> See Spatial Distribution of Water Temperature Affects on Rice Productivity, Final Report prepared for the California Department of Water Resources, Mutters, R.G., April 20, 2007, p.2 (“2005 Study Final Report”) (“Prolonged exposure to cold water reduced the yield of rice at all locations. The yield loss, averaged across locations was 14% based on experimental data.”)

<sup>12</sup> See DEIR, p.5.2-15.

<sup>13</sup> DEIR, p.5.2-18.

projects, and the effects of probable future projects.”<sup>14</sup> DWR has previously admitted that studies referenced by the Districts in their Comments on the FERC DEIS demonstrate that “incremental duration of exposure or an incremental decrease in water temperatures should result in an incremental loss of [rice] yield.”<sup>15</sup> In its cumulative impact analysis, DWR similarly admits that “[a]dditional reductions in water temperatures compared to historical or Existing Conditions with implementation of the Proposed Project would result in a small incremental reduction in water temperature at the agricultural diversions in Thermalito Afterbay. These reductions ... would likely result in an incremental additional yield loss in rice production ...”<sup>16</sup>

N0009-13  
cont.

As shown in above citations, the temperature of water delivered from Oroville Reservoir has consistently dropped over time. The DEIR should analyze estimated incremental decrease in water temperature, and the corresponding yield loss, to determine the cumulative impact of the original Oroville Dam and the current proposed Project alternatives.

Second, minor decreases in agricultural diversion temperatures can have correspondingly large impacts on rice yields. DWR has previously contested this claim by stating that studies cited by the Districts in their comments on the FERC DEIS “do not address the actual impacts of cold water to the Districts, but rather focus on developing a functional relationship of water temperature exposure to yield loss at a specific location within a single rice field...”<sup>17</sup> As discussed above, DWR and the Districts have recently received the results of the 2005 study which shows an average of 14% yield loss for the

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N0009-15

N0009-16

<sup>14</sup> 14 CCR §15064(h)(1).

<sup>15</sup> Response of DWR to Comments on the Draft EIS at 18.

<sup>16</sup> DEIR, p.6.2-21.

<sup>17</sup> *Id.*

experimental fields.<sup>18</sup> Published studies cited in the 2005 Study Final Report show that  
that rice requires a minimum water temperature of 55°F to sustain growth, that the  
physiologically critical water temperature for the germination and early seedling growth  
is around 63°F, and that shoot growth is retarded below 61°F rice is sensitive to  
temperature thresholds.<sup>19</sup> And, DWR has itself previously acknowledged the sensitivity  
of rice to low water temperatures.<sup>20</sup> The DEIR's current analysis ignores the potentially  
significant impact of relatively minor temperature drops on rice, by not analyzing the  
impacts in light of damage inducing temperature thresholds indicated by published rice  
studies.

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cont.

N0009-17

N0009-18

Furthermore, the DEIR states that, at the Robinson Riffle, "[t]he Table 1 target  
under the Proposed Project for May 1 through May 15 increases from 56°F to 63°F,  
while the target for the remainder of May is the same as for June (i.e., 63°F)."<sup>21</sup> Because  
water temperatures at Robinson Riffle were more than 2°F cooler than the current water  
temperature requirements during approximately 75% of conditions that occurred from  
May through July in 2001-2006, the DEIR concludes that agricultural diversion

N0009-19

<sup>18</sup> See 2005 Study Final Report, p.2.

<sup>19</sup> See 2005 Final Report, p.10 (citing studies Matsuo (1957) (Rice culture in Japan. Ministry of Agriculture and Forestry, Japanese Govt. Tokyo, 128pp.), Ogiwara and Terashima (2001) (A Varietal Difference in Coleoptile Growth is Correlated with Seeding Establishment of Direct Seeded Rice in Submerged Field under Low-Temperature Conditions, Plant Production Science 4 (3): 166-172.), and Hearth and Ormrod (1965) (Some Effects of Water Temperature on the Growth and Development of Rice Seedlings. Agronomy Journal 373-376.).

<sup>20</sup> See "Comments on Draft Biological Opinion on Effects of Operation of the Federal Central Valley Project and the California State Water Project From December 1, 1999 through March 31, 2000 on Central Valley Steelhead and Central Valley Spring-run Chinook Salmon", Ltr to NMFS Assistant Regional Administrator Mr. James Lecky from Larry K. Gage, Chief SWP Operations Control Office, February 22, 2000, attached comments, p.1, "This section of the Biological Opinion [regarding Feather River Instream Flow and Temperature Requirements] should also include the following references to contractual obligations DWR has with local irrigation districts related to water", in part, "Allowing for proper germination and development of their crops requires water diverted from the river or Thermalito Afterbay be no colder than 64°F April through May..."

<sup>21</sup> DEIR, p.5.2-14.

temperatures for the Thermalito Afterbay during May through July will experience a probable reduction of less than 2°F.<sup>22</sup> Based on that estimated 2°F reduction, the DEIR concludes that no substantial decrease in rice yields is expected.<sup>23</sup>

N0009-19  
cont.

In contrast, the 2005 Study Final Report concluded that the total number of hours of water temperature below 65° F from planting to panicle initiation “was the best and consistently statistically significant single predictor of yield loss under all circumstances whether the field data were analyzed individually or pooled in various combinations.”<sup>24</sup> Thus, yield loss is both a function of critical temperature thresholds and the total number of hours of cold-water exposure. The DEIR’s stated temperature goal is 63°F at the Robinson Riffle, with a potential additional 2°F drop for agricultural diversions. Despite that stated goal, the DEIR’s analysis fails to address the span of time which future rice crops are estimated to be exposed to water temperatures below 65°F under the proposed Project alternatives.

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The DEIR analysis should address both the potential for incremental small changes in agricultural diversion temperatures to impact rice yields due to cumulative impacts caused by the original Project, and the magnitude of the impact as influenced by critical temperature thresholds and the amount of time rice is exposed to cold water.

N0009-22

**III. THE DEIR DOES NOT ADEQUATELY DEFINE THE SIGNIFICANT IMPACT THRESHOLDS TO THE CULTIVATION OF RICE AND THE DAMAGE DONE TO RICE YIELDS**

The DEIR minimizes the damage done to the cultivation of rice within the Districts by redefining significant impact to agricultural resources under the proposed

N0009-23

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<sup>22</sup> See DEIR, p.5.2-13 & 14.

<sup>23</sup> See DEIR, p.5.2-18.

<sup>24</sup> 2005 Study Final Report, p.75.

Project re-licensing terms in a narrow fashion that hinders the DEIR's purpose as a full disclosure document. The DEIR defines as significant only those impacts which do any of the following:

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cont.

- (1) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use; or
- (2) Conflict with existing zoning for agricultural use, or a Williamson Act contract; or
- (3) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.<sup>25</sup>

Using this analysis, DWR is able to issue a draft document that, in effect, ignores damages to the Districts by suggesting that none of its triggering levels of significance are met.

The DEIR correctly acknowledges the concern expressed by the Districts "regarding the suitability of irrigation water temperatures at the Thermalito Afterbay agricultural diversions and the potential for exposure to cold water during critical periods to reduce rice yields..."<sup>26</sup> It determines that such relatively small changes in temperature magnitude "would not be expected to substantially increase rice yield loss attributable to cold water exposure, relative to Existing Conditions."<sup>27</sup> The DEIR then applies the above three-part test to evaluate the potential for the impacts of the project to result in conversion of farmland to non-agricultural uses.<sup>28</sup> For both the Proposed Project and the FERC Staff Alternative, the DEIR concludes, "rice yield changes would not be

<sup>25</sup> DEIR, Environmental Impacts, p.5.13-3.

<sup>26</sup> *Id.*

<sup>27</sup> DEIR, Environmental Impacts, section 5.13-6.

<sup>28</sup> *Id.*

substantial enough to result in conversion of farmland to non-agricultural use. Therefore, no impact would occur.”<sup>29</sup>

The DEIR’s truncated analysis of the impact of cold water diversions on rice yields (limited to conversion of farmland) is inadequate, for several reasons. First, the conversion of farmland to non-agricultural uses is not an exclusive test to determine significant impacts to agricultural resources. Indeed, since it ignores significant damage caused by cold-water, the test is clearly misapplied to this circumstance. Second, the DEIR analysis must evaluate economic and social effects on the impact to rice yields. Finally, the DEIR itself recognizes that differences between Feather River source temperatures and irrigation water diversion temperatures can be a significant impact.

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The DEIR’s measure of significant impact --the conversion of agricultural land to non-agricultural uses-- is inadequate. The three-part test appears to be lifted, verbatim, from the suggested Initial Study form questions located in the CEQA Guidelines Appendix G, and is adopted by DWR as if the CEQA Appendix G checklist constitutes the only possible method of determining whether a significant impact to farmland exists. In contrast, Guidelines Appendix G clearly states that it is “only a suggested form, and lead agencies are free to use different formats; however, lead agencies *should normally* address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.” (emphasis added). Consistent with California State policy,<sup>30</sup> Appendix G clearly addresses significant impacts which influence the

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<sup>29</sup> DEIR, p.5.13-8.

<sup>30</sup> See, e.g., the Williamson Act (Cal. Gov. Code §§51200 et seq.)

direct conversion of farmland to other uses. However, Appendix G Guidelines are neither mandatory nor exclusive tests of significant impacts.<sup>31</sup>

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A significant effect on the environment is “any substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including *land*, air, *water*, minerals, flora fauna, ambient noise, and objects of historic or aesthetic significance.”<sup>32</sup> The significance of an environmental effect requires evaluation of “direct physical changes in the environment [that] may be caused by the project and reasonably foreseeable indirect physical changes in the environment [that] may be caused by the project.”<sup>33</sup> And, importantly, the significance of an impact depends on the environmental setting.<sup>34</sup> California courts have recognized the need for EIR’s for cases in which potentially adverse effects on agricultural land production, not directly related to the conversion of farmland to non-agricultural uses, must be analyzed within an EIR.<sup>35</sup> Thus, the DEIR must analyze, and disclose, whether the impact of cold water on rice yields may constitute a significant environmental impact regardless of whether such impact would cause the conversion of farmland to non-agricultural uses.

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In addition, the DEIR must analyze the environmental impact on agricultural lands caused by the socioeconomic impact of reduced rice yields. The “[e]conomic or

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<sup>31</sup> See e.g. *Ocean View Estates Homeowners Assn., Inc., v. Montecito Water Dist.* (2004) 116 Cal. App. 4<sup>th</sup> 396, 401 (“Appendix G ... recommends that the lead agency consider” certain questions” (emphasis added).)

<sup>32</sup> 14 California Code of Regulations (“CCR”) §15382.

<sup>33</sup> 14 CCR §15064(d).

<sup>34</sup> See 14 CCR §15064(b) (“An ironclad definition of significant is not always possible because the significance of an activity may vary with the setting. For example, an activity which may not be significant in an urban area may be significant in a rural area.”) [This caution rings particularly true in the rural agricultural setting of the rice fields at issue within the Districts boundaries. There are no currently feasible potential uses for those lands aside from agriculture, and DWR’s test of whether the impact will lead to conversion of those lands to non-agricultural uses rings hollow in such a setting.]

<sup>35</sup> See, e.g., *County Sanitation District No. 2 v. County of Kern*, 127 Cal. App. 4<sup>th</sup> 1544 (2005); *Magan v. County of Kings*, 105 Cal. App. 4<sup>th</sup> 468 (2002).

social effects of a project shall not be treated as significant effects on the environment.”<sup>36</sup> However, “economic and social changes may be used to determine that a physical change shall be regarded as a significant effect on the environment [...] Alternatively, economic and social effects of a physical change may be used to determine that the physical change is a significant effect on the environment.”<sup>37</sup> As a result, the DEIR must analyze the magnitude of the environmental impact, in light of the economic and social effect of reduced rice yields on local farmers.

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cont.

Finally, the DEIR acknowledges that a significant impact occurs if a Project alternative would “[v]iolate any water quality standards or waste discharge requirements.”<sup>38</sup> The Basin Plan prepared every three years by the Central Valley Regional Water Quality Control Board (“RWQCB”) describes “officially designated beneficial uses for surface water and the enforceable water quality objectives necessary to protect those beneficial uses.”<sup>39</sup> Included in the beneficial uses identified by the Central Valley RWQCB in its *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, Fourth Edition, Sept. 1998, as amended, are “municipal and domestic supply, irrigation, power, contact recreation, non-contact recreation, warmwater habitat, coldwater habitat, warmwater spawning habitat, coldwater spawning habitat, and wildlife habitat (emphasis added)”<sup>40</sup> The Basin Plan states that the natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated ... that such alteration in temperature does not adversely affect beneficial uses.<sup>41</sup> Thus,

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<sup>36</sup> 14 CCR §15131(a).

<sup>37</sup> 14 CCR §15064(e).

<sup>38</sup> DEIR, Environmental Impacts, p.5.2-10.

<sup>39</sup> DEIR, Environmental Impacts, p.5.2-7.

<sup>40</sup> DEIR, Environmental Impacts, p.5.2-9.

<sup>41</sup> DEIR, p.5.2-9 “Basin Plan Beneficial Uses”; see also California Regional Water Quality Control Board, Central Valley Region, Fourth Edition of the Water Quality Control Plan (Basin Plan) for the Sacramento

regardless of whether agricultural land is converted to non-agricultural uses, a significant impact occurs where the Project alters the natural waters of the Feather River and in so doing adversely affects irrigation.

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The DEIR admits that "[t]he exact nature of potential agricultural impacts associated with the future potential facilities modifications are currently unknown, but some potential impacts could be anticipated based upon the current descriptions of the potential facilities modifications."<sup>42</sup> The DEIR then concludes that potential temperature reductions of up to 2°F would not substantially decrease rice yield attributable to coldwater exposure, nor be expected to result in any conversion of agricultural land.<sup>43</sup>

The DEIR misses the mark on what constitutes a significant impact. Under the Basin Plan, the significance of the impact must be evaluated in light of the difference between the proposed diversion temperatures and the natural receiving water of the Feather River. Conversion of agricultural land is not an element of this test. The State Water Resources Control Board recognized this distinction, when it admonished FERC that, "[a]fter construction of Oroville Dam, water temperatures became less suitable for rice cultivation during the early irrigation season ... Resolution of this issue could require physical changes at the Thermalito Afterbay to control temperature. The impacts and benefits of alternatives to improve water temperature for rice production should be evaluated and included in the final EIS."<sup>44</sup> It is the impact of the Project on natural

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River and San Joaquin River Basins, 15 September 1998, p.III-8 ("The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses.")

<sup>42</sup> DEIR, p.5.2.-16.

<sup>43</sup> DEIR, p.5.2-18.

<sup>44</sup> See Letter from Russ J. Kanz, Staff Environmental Scientist, to Magalie R. Salas, dated December 19, 2006, *supra*.

receiving waters which must be shown to not impact the beneficial use of that water for the cultivation of rice.

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#### IV. CONCLUSION

The DEIR does not serve as a full disclosure document of the environmental impacts of cold-water on rice production. The DEIR uses only the narrow test of whether the Project's impacts will result in conversion of agricultural land to non-agricultural uses. That test finds significant impacts only if there is some conversion of land to non-agricultural uses. It also does not account for cumulative impacts of past Project operations or potentially significant impacts in light of social and economic considerations of relatively small yield losses. Furthermore, it does not acknowledge that significant impacts are caused by changes in water temperature which adversely affect irrigated crops in violation of the Basin Plan, as determined by the Regional Water Quality Control Board.

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DWR has previously recognized that certain water temperature thresholds can affect rice growth. That acknowledgment is contrary to the DEIR's conclusion that small temperature changes cannot result in relatively large yield losses. The DEIR's conclusion is contrary to published studies. Additionally, the DEIR does not address the temporal relationship between yield loss and cold water.

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DWR previously stated that it would negotiate a reasonable solution if the 2005 study showed cold-water impacts on rice yields. The study showed adverse impacts to local farmers' rice yields. During the 2005 study (and now that the results are known), the Districts and DWR have negotiated diligently toward mitigation of the impact. The parties have signed a Term Sheet, formalizing their intent to reach a negotiated settlement

N0009-36

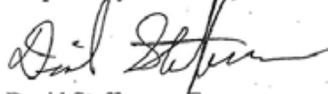
of this issue.<sup>45</sup> The Term Sheet specifies a method of determining the cold-water damage caused to rice yields and to calculate appropriate financial mitigation.<sup>46</sup> The Term Sheet, which was executed after issuance of the DEIR, addresses the significance of the impact of cold-water deliveries from the Thermalito Afterbay. The Districts believe that a settlement agreement consistent with the intent of the Term Sheet would provide appropriate mitigation for the damages caused by cold-water agricultural diversions. The Districts believe such a settlement would be the most beneficial solution for both parties and would negate the need for other potential mitigation measures, such as physical alterations to the Oroville Facilities to warm agricultural diversions.

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The Districts ask DWR to analyze and address the above concerns in the Final EIR and to continue to work with the Districts to reach an amicable settlement.

N0009-37

Respectfully submitted,



David Steffenson, Esq.  
Jeffrey Meith, Esq.  
Minasian, Spruance, Meith, Soares & Sexton LLP  
1681 Bird Street  
P.O. Box 1679  
Oroville, California 95965-1679  
Phone: (530) 533-2885  
Facsimile: (530) 533-0197  
Email: [dsteffenson@minasianlaw.com](mailto:dsteffenson@minasianlaw.com)

Counsel for Western Canal Water District, Richvale  
Irrigation District, Butte Water District, Biggs-West  
Gridley Water District, and Sutter Extension Water  
District

<sup>45</sup> See Term Sheet attached as Exhibit "A" to this Comment Letter and signed by both representatives of DWR and the Districts.

<sup>46</sup> See Term Sheet.

DATED: August 20, 2007.

## **RESPONSES TO COMMENTS FROM THE JOINT WATER DISTRICTS**

### **Responses N0009-1 through N0009-37:**

This letter is a duplicate of Comment Letter N0004. Please see Responses to Comments N0004-1 through N0004-37.

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