



California Sportfishing Protection Alliance

“An Advocate for Fisheries, Habitat and Water Quality”

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Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100
(Via e-mail)

Dear Ms. Townsend:

The California Sportfishing Protection Alliance appreciates the opportunity to comment on the July 2, 2010 third public draft of the 401 Certification for the relicensing of the Oroville Facilities, FERC #2100.

CSPA commends the Board for the thoughtfulness of its July 9, 2010 Response to Comments on the second public draft. The response provides additional rationale for the third draft, and in particular the Board’s description and conceptual defense of its legal and enforcement authorities. CSPA would like to start with these.

The Board is Correct to Require Clear, Enforceable Conditions

The Department of Water Resources and the State Water Contractors, in their comments on the second draft 401, attacked the board’s authority both procedurally and substantively. They attacked this authority particularly in relation to the Federal Energy Regulatory Commission, the Oroville Settlement Agreement and the settling parties, legal conclusions drawn by DWR in the EIR, and the Habitat Expansion Agreement.

In its July 9 Response to Comments, the Board methodically rebuts these challenges.

DWR argued in its comments that enforcement of requirements under Section 401 of the Clean Water Act could only be carried out by FERC. The State Water Contractors contended that the Board does not have authority to include a reopener in its Certification. This venue shopping was transparently crafted to reduce regulatory exposure. The Board was correct and eloquent in its refutation of these procedural challenges. (See Response to Comments, pp. 14-15; pp 23-4).

DWR also sought to invent its own language for a standard of protection, seeking to “reasonably protect” public trust resources with “reasonable assurance.” In response, the Board clearly distinguishes between its requirements for issuing a 401 Certification and its requirements for enforcing it, and dismisses the notion of a “reasonable” violation.

The State Board refuses to be bound by the legal conclusions of DWR’s EIR, and instead affirms that it must independently investigate and evaluate whether conditions placed on the operation of the project protect beneficial uses. The Board cites to the EIR to demonstrate that current conditions do not protect beneficial uses, and reminds DWR that “improvement is not necessarily equivalent to protection under the Basin Plan.”¹

In response to the second draft 401, the State Board was peppered with form letters from various entities among the State Water Contractors. Each of them implored the State Board to adopt the language of the Settlement Agreement into the 401. The Board responds that in this regard as well it must independently require measures that protect the beneficial uses. Above all, these measures must be clear and enforceable. The licensees and the Contractors negotiated a Settlement Agreement whose language makes it less than clear and enforceable, and would reduce the Board’s authority. The Settlement Agreement’s reduction of the Board’s authority to “one member of a committee” is not sufficient for the Board to fulfill its statutory responsibilities. “Similarly, it is not sufficient to rely on FERC to approve and enforce the plans, as the SA anticipates.” (Response to Comments, pp. 5-6). DWR and the Contractors should not be surprised that the Board has affirmed and clarified its legal and enforcement responsibilities.

CSPA is a member steering committees of both the California Hydropower Reform Coalition and the national Hydropower Reform Coalition, and believes that comprehensive settlement agreements are often a desirable and appropriate outcome in the relicensing of hydropower projects. CSPA is signatory to three such comprehensive settlements, and CSPA’s FERC Projects Director is a personal signatory to another. However, the Oroville Settlement was circumscribed in scope and insufficiently protective of instream beneficial uses. CSPA does not enjoy being in a position of disagreement with two of our CHRC colleagues, or with many of the resource agencies, and CSPA regrets that it did not have the manpower to participate in the Oroville relicensing. However, CSPA believes that the Oroville Facilities are critically important in managing water in California, and has been engaged in the proceeding since 2006, when we commented on the DEIS and intervened in the FERC proceeding. There are major problems with this settlement. CSPA commends the Board for identifying many, and thinks there are more. In this case, these problems outweigh the benefits of settlement.

DWR and the State Water contractors are vociferous in their opposition to making the Habitat Expansion Agreement part of the 401. DWR and the Contractors suggest that

¹ Response to Comments, p. 5. This comment by the Board goes to the heart of one of the inadequacies of the EIR, and also to FERC’s lack of substantially different alternatives in its NEPA documents. Presentation of an incremental improvement is not an analysis of alternatives under NEPA or CEQA.

inclusion in the 401 will lead to inclusion of the HEA in the FERC license, and contemplate such draconian measures as the addition of a part of a river distant from the project to the FERC project boundary. Again, this is a transparent effort to limit exposure and avoid accountability.

DWR complains that “cost caps” in the HEA could be removed by making the HEA part of the 401. The State Board is very clear on this point: the requirement is not to make a certain expenditure, but rather is performance based. Though FERC has proposed not to include the HEA as part of the new FERC license, FERC has a similar general approach to license measures, requiring completion of a requirement rather than placing a limit on expenditure. The State Board is very clear in pointing out that DWR’s option is to withdraw from the HEA and allow the Board to require a different mitigation; the option is not to be relieved of its requirement to mitigate loss of fish habitat after a certain amount of money is spent.

CSPA does not believe that the Habitat Expansion Agreement adequately mitigates for the loss of salmon, steelhead and sturgeon habitat in the Feather River. CSPA also does not believe that as written the Habitat Expansion Agreement contains clear and enforceable measures to determine compliance of the HEA with the Basin Plan. However, we agree with the Board that it has every right and in fact the obligation to include within the 401 Certification enforceable measures that mitigate for the loss of fish habitat.

The Third Draft 401 Certification: Overview

The State Board does a good job in its Response to Comments of affirming and describing its authorities under the Clean Water Act. However, it does not always do as good a job of carrying them out. Some of the proposed measures in the third draft 401 are not clear, and some are not enforceable. Some do not provide sufficient definition to achieve their goals. Discretion to weaken requirements is given to the Deputy Director, Division of Water Rights. Some standards are not sufficient to achieve an appropriate level of mitigation.

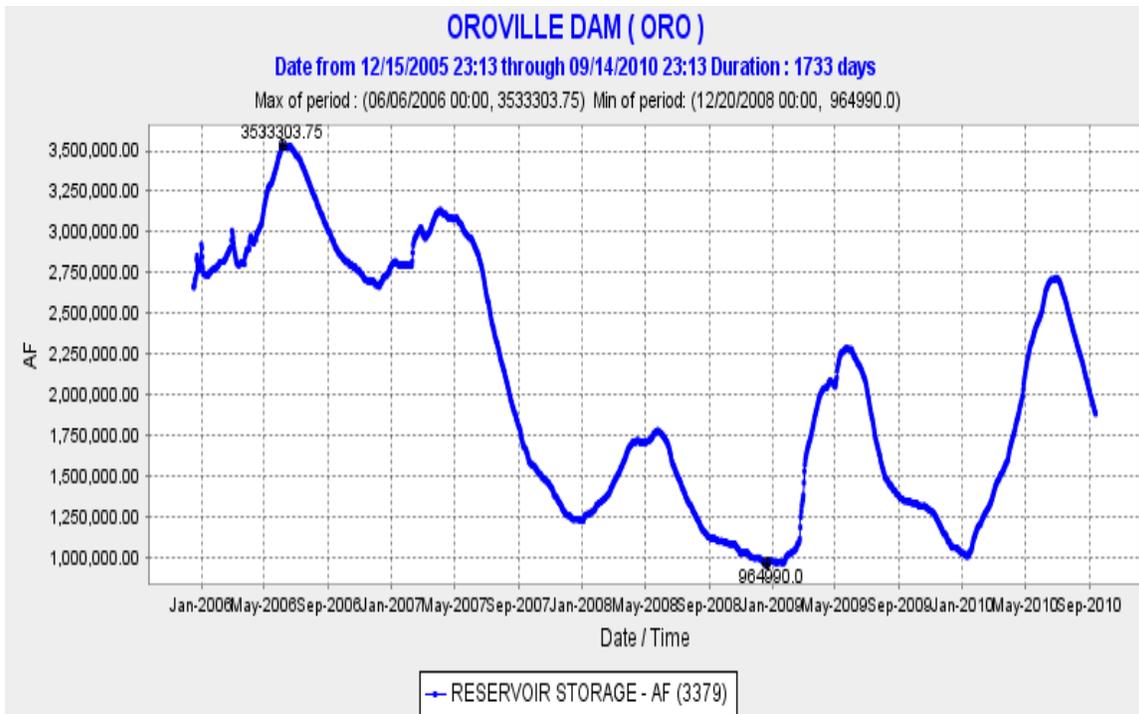
CSPA has consistently maintained that the NEPA and CEQA documents for this relicensing, the draft Biological Opinion, and the two previous draft 401 Certifications have improperly truncated the Oroville Facilities from the rest of the State Water Project. This is not only a legal issue, or one of perspective. One of the consequences of this truncation is that operation of the State Water Project for water supply can, unless restricted, undermine the enforceability and the protectiveness of the 401. We shall analyze this, and propose some solutions below.

Additionally CSPA has a number of specific, major problems with the third draft 401 Certification. Most of these have been set forth in previous comment letters, and most of them are at least partially bound up with the failure to consider the operation of the State Water Project in setting conditions for this 401. In brief, these problems are:

1. There is no definition of the “normal operation” of the project.
2. There is no explicit carryover storage requirement, and there are reduced flow and temperature standards in years when the stage height of stored water in the reservoir is likely to be drawn below 733 feet, and in conference years.
3. The third Draft 401 does not establish or reserve the Board’s authority, even as a placeholder, to require specific contributions from Lake Oroville to Delta outflow.
3. The Deputy Director, Division of Water Rights has the discretion to change water temperature and other requirements.
4. There are no flow requirements for floodplain inundation; there are only requirements to evaluate how flow might affect floodplain use.
5. Hatchery impacts are not sufficiently evaluated in combination with project operation.
6. Requirements concerning the damaged river valve are not sufficiently strict.
7. The Habitat Expansion Agreement does not contain clear and enforceable requirements by which that the Board can independently evaluate the HEA’s effectiveness.
8. The HEA does not mitigate for lost habitat to the standards of the California Endangered Species Act, which requires full mitigation for take of listed species.
9. Finally, within the third Draft 401 Certification, there are procedural provisions that weaken oversight by both the Board and the public.

“Normal operation of the project”

In each of its previous comments letters on the previous draft 401 Certifications, CSPA has called out the inadequacy of the phrase “normal operation of the project” as used by the State Board. In its rationale in the July 2, 2010 (third) draft 401 Certification, the Board states on page 10: “Normal operation is the operation of the State Water Project (SWP) based on standard factors such as hydrology, storage, routine maintenance and SWP obligations. Changes in operation that are a result of unusual events such as flood control releases, accidents, project failures and major or unusual maintenance are not considered normal operation.” While the Board is thus relatively clear on what “normal operation” is not, the Board remains totally unclear on how “SWP obligations” affect the ability to define and enforce conditions for protection of fishery and other instream resources in the Lower Feather River.



(Source for all graphs: DWR’s California Data Exchange Center website)

There is permanent, systemic pressure to withdraw as much water as possible from Lake Oroville every year, because the contracted amounts for water delivery through the SWP are almost double what the SWP delivers on average each year. In 2010, a year with about average precipitation in most of the state including the Feather River watershed, SWP allocations to contractors were 50%.² The Board is well aware that there is tremendous political and economic pressure to constantly increase SWP deliveries, a trend from which there is respite only in extremely wet conditions. Consider the hydrograph for reservoir storage from 2006 to the present, which is reproduced above. In 2007, in spite of inflow that increased net storage by less than 500,000 acre-feet, DWR made a net drawdown of just under 2,000,000 acre-feet from Lake Oroville. Reservoir levels have not recovered till this day. In 2008, a net 800,000 af was withdrawn; in 2009, a net 1,200,000 af was withdrawn, effectively returning end of year storage back to the level it was at the end of 2008. While storage on June 30, 2010 peaked at just under 2,720,000 af, it is likely that DWR will once again draw the reservoir down to between 1,000,000 and 1,200,000 af.

By contrast, Don Pedro Reservoir on the Tuolumne River recovered its storage in 2010 to the point where its operators made flood control releases this spring.³

² The provision in the Settlement Agreement to reduce flows in the High Flow Channel in certain years by the same proportion as deficiencies in agricultural deliveries, up to 25%, ignores the fact that deficiencies will *always* be greater than 25%.

³ This is partially, but only partially, made possible by the fact that required instream flows in the Tuolumne are too low. Also at play on the Tuolumne are better management and finite demands.

In short, there will always be severe pressure on water stored in Lake Oroville. Following FERC, the Board has elected to not consider, in its 401, effects of the operation of Oroville on the Delta and the rest of the State Water Project. Lacking restraints on the operations of the State Water Project, the effects of the operation of the SWP should be buffered from effects on Oroville and the lower Feather River by clear, enforceable, *stand-alone measures*. Failure to require stand-alone conditions will make it impossible to discern whether inadequate storage in the reservoir is the product of events beyond or within the control of the licensee. We discuss this further under carryover storage below.

To protect beneficial uses, the Board must prescribe carryover storage requirements for Lake Oroville

In its Response to Comments on the January 21, 2010 draft 401 for Oroville, the Board on page 24 answers CSPA:

CSPA states the Draft fails to protect beneficial uses because it separates the operation of the Project from the operation of the State Water Project. CSPA alleges that this separation could allow unrestricted withdrawals from Lake Oroville and lead to depletion of the cold water pool. The Draft contains conditions requiring DWR to maintain water temperatures that will protect the anadromous fishery. These temperature conditions should indirectly cause DWR to operate the project to maintain a cold water pool to protect anadromous fish. While the Draft does not specifically restrict reservoir withdrawals or mandate minimum elevations it does require protection of anadromous fish in the Feather River.

The Board creates no guidelines, let alone clear rules, about what is required from DWR in terms of a cold water pool. How does it propose to enforce the requirement to “maintain water temperatures that will project the anadromous fishery?” How will compliance be measured, and what will be the consequences for failure to comply?

If, as in 2007 and 2008, DWR drops the reservoir to about 1,000,000 af of water in storage and precipitation then is the same or less than it was in the spring of 2007, will it have been “feasible” for DWR to meet temperature requirements because it could have held more water in storage, or was the fact that precipitation was skimpy mean that the situation is “outside the control” of DWR?

An important problem with the way the Draft 401 “indirectly” addresses carryover storage is that compliance can only be measured after the fact, long after there is the opportunity to take proactive action to avoid non-compliance. It will be equally difficult to hold DWR to account in the event of limited wet season rainfall if decisions made 6 to 9 months earlier are not provided with a clear carryover storage standard.

Numerous representatives of water purveyors in the State Board’s January to March Delta Flow Informational Proceeding emphasized the importance of sufficient carryover storage to maintain cold water pools in major storage reservoirs. In July, 2010 comments

on the draft *Report for the Development of Flow Criteria for the Sacramento - San Joaquin Ecosystem* (hereinafter, *Delta Flow Criteria Report*)⁴, the Department of Water Resources explicitly highlights this issue: “By taking a narrow focus on Delta outflow and ignoring the consequences on cold water reserves in upstream reservoirs, these flow criteria recommendations would have a severe adverse impact on anadromous fisheries upstream of the Delta.”⁵ For their part, the State Water Contractors note in their July 29, 2010 comments on the draft *Delta Flow Criteria Report*: “The Report shows that even with devastating impacts to water supply and frequent loss of reservoir cold water pool **necessary to protect spawning salmon**, the flow recommendations cannot be consistently achieved.”⁶ Conveniently, the Contractors are silent about Oroville, but express particular concern about Lake Shasta: “the Flow Report’s inflow criteria on the Sacramento River will significantly impact winter-run Chinook salmon on the mainstem of the Sacramento River by depleting the cold water pool in Shasta Reservoir.”⁷ Apparently, it’s particularly important that **someone else** not be constrained in maintaining anadromous fisheries.

The federal fisheries agencies (U.S. Fish and Wildlife Service and National Marine Fisheries Service) are also both signatory to an Oroville Settlement that has no enforceable cold water pool requirements. Clearly, neither entity thought it necessary to insist on a numeric limit on State Water Project water supply demand in order to protect a cold water pool to meet water temperature requirements in the Lower Feather River.⁸ However, it appears that both entities had revelations in considering the importance of carryover storage in regards to a potential **competing environmental use**, namely Delta flow.

Writing for the National Marine Fisheries Service, Howard Brown, though without ever mentioning carryover storage or cold water pools, devotes a full third of his comments to the potential water temperature impacts of downstream demand for Delta outflow:

Although the flow criteria do inform Delta planning efforts to some degree, NMFS agrees with the State Water Board’s recognition that the criteria have a narrow focus on the needs of aquatic species in the Delta and do not consider all public trust needs or balance all beneficial uses. One example illustrating this point of particular concern to NMFS is the fact that the Delta flow criteria were established without balancing the condition of upstream habitats. Operating to the Delta flow criteria may result in water temperature related impacts to anadromous

⁴ The final report was approved and adopted by the State Board on August 3, 2010.

⁵ Comments of Mark Cowin, DWR, on draft *Delta Flow Criteria Report*, July 29, 2010, p. 2.

⁶ Comments of Byron Buck, State Water Contractors, draft *Delta Flow Criteria Report*, July 29, 2010, p. 1, emphasis added.

⁷ Ibid, p. 4.

⁸ As we pointed out on page 2 of our February 16, 2010 comments on the second draft 401 for Oroville: “The apparent plan of the National Marine Fisheries Service (whose Draft Biological Opinion circulated last July we have also criticized) is to issue a No Jeopardy Biological Opinion for the project separate from its Biological Opinion for the Operations and Criteria Plan of the State Water Project and Central Valley Project, where it appropriately found jeopardy. We can therefore not expect a cold water pool management prescription from NMFS.”

fish in the upstream rivers and tributaries. While the Report does mention that the Delta flow criteria should be “tempered by the need to maintain cold water resources and meet tributary specific flow needs in the Delta watershed,” resolving those issues will be necessary in order to implement the Delta flow criteria in a way that will truly restore and promote viable, self-sustaining populations of aquatic species.⁹

The Department of the Interior, of which the U.S. Fish and Wildlife Service is a part, expressed more explicit concern over how much water would be needed on an annual basis to support coldwater pools:

For example, the State Board proposes that a good method for preserving the attributes of a variable system to which Delta native fish species are adapted is to develop Delta flow criteria based on a fixed percentage of the natural flow or unimpaired flows. Ostensibly, a fixed percentage of natural or unimpaired flow “mimics” the natural hydrograph. However, for water planning, utilizing a fixed percentage of unimpaired flow will be most useful if all other beneficial uses the State Board must balance can also be expressed in terms of fixed percentages of unimpaired flow. Currently, this is not the case. Upstream cold water pools for salmon and salinity control are two examples of objectives which are expressed in terms of the goals, not flow, and they do not necessarily translate in a straightforward way to percentages of unimpaired flow. At any given point, preserving cold water pools and salinity control may take an undetermined percentage of unimpaired flow. It may not be possible to develop Delta flow criteria until the needs of all water quality objectives and beneficial uses can be expressed and evaluated in a like manner.¹⁰

Reservoirs are operated to target carryover levels by reservoir operators all over the state. A Biological Opinion mandates specific carryover amounts in Shasta Lake. However, neither the Settlement Agreement nor the Draft BO for Oroville issued in June, 2009 includes an explicit carryover requirement for Oroville. It is unconscionable that DWR should be allowed to release too much water from the second largest reservoir in the state in the hopes of rains sufficient to refill the reservoir that may or may not materialize.

On page 12 of the July 2 Draft 401 Certification, the Board states: “The purpose of the “conference year” provision which relaxes the water temperature table requirements is to accommodate combinations of water year types and low reservoir storage conditions, when it is not possible to meet the water temperature goals with the available cold water.” The Board should not allow a situation where it becomes “not possible to meet the water temperature goals” because DWR has gambled and lost on refilling water it irresponsibly released many months previously.

⁹ Howard Brown, NMFS comments on draft *Delta Flow Criteria Report*, July 29, 2010, p. 1.

¹⁰ Amy Aufdemberge, USDOJ comments on draft *Delta Flow Criteria Report*, July 29, 2010, p. 2.

To have enforceable water temperature requirements, the Board must define compliance, measure compliance, and have consequences for non-compliance. Part of the consequences for non-compliance need to be requirements that assure compliance. A responsible approach would be to set carryover storage requirements and re-evaluate if in practice they led to temporary weakening of the temperature standards, either under the Conference Year provisions of Measure S8 (g), (h), and (i), or under the other requirements of Measures S7 and S8. This would provide clarity and certainty to DWR about what the carryover requirements were, would allow the State Board to evaluate compliance and apply consequences for non-compliance as it happened, and would absolve DWR in the short term of responsibility for circumstances that were truly beyond its control. Should a repeated pattern of non-compliance occur (on top of other provisions for operational changes and facility modifications), the Deputy Director could then increase the carryover storage requirement, rather than leaving the issue to be divined on an annual basis.

The lack of specific requirements for carryover storage in the third draft 401 delays accountability, and threatens to start an entire new negotiation should DWR's long term operation for carryover fall short. CSPA reminds the Board that determining carryover needs and operation is a significant series of technical problems as well as a series of political, economic and policy issues. Making up a process once there is a problem is not only a poor way to do business, it also does not protect beneficial uses.

The Board has a legal responsibility to define, exercise and preserve its authority to assure compliance with the Basin Plan and projection of beneficial uses.

In *Karuk Tribe of Northern California v. California Regional Water Quality Control Board, North Coast Region* (State Court of Appeals, A124351, A 124369, A 12430, 2010; hereinafter *Karuk v. Regional Board*), the Court, ruling on the authority of the Regional Board to enforce waste discharge requirements on reservoirs operated as part of a hydroelectric project, set forth an opinion that federal pre-emption under the Federal Power Act restricts to the context of hydropower licensing proceedings a state's implementation of its water quality laws as they relate to federally licensed hydropower projects.

In its decision, the Court quotes extensively from the "Supplemental Analysis to Accompany Resolution No. R1-2007-2008," produced by the North Coast Regional Board, which the Judge summarizes as follows: "The gist of the analysis was that, under the FPA and the Clean Water Act as construed in S.D. Warren and PUD No. 1, the opportunity of a state to implement its water quality law was substantial but only in the context of federal licensing proceedings."¹¹ The Court ultimately agrees with this legal conclusion that was stated by the Board:

A determination of federal preemption does not automatically mean that state input is categorically prohibited and state opinion of no consequence. The Clean

¹¹ *Karuk Tribe of Northern California v. California Regional Water Quality Control Board, North Coast Region* (Sonoma County Superior Court No SCV-241368, 2010), pp. 7-8.

Water Act gives states what appears to be a very substantial role by requiring that an applicant for any federal license comply with state water quality procedures. (See fns. 17, ante; S.D. Warren, supra, 547 U.S. 370, 386; PUD No. 1, supra, 511 U.S. 700, 707, 713.) But the crucial points are (1) that it is Congress that determines what is the extent of state input, and (2) that input takes place within the context of FERC licensing procedures as specified in the FPA. It is only when states attempt to act outside of this federal context and this federal statutory scheme under authority of independent state law that such collateral assertions of state power are nullified. All of these points were acknowledged by the Board in its supplemental analysis. (See fn. 6 and accompanying text, ante.)¹²

In the future, there may be disputes regarding the scope of the State Board's authority. The Board should clearly lay out in the 401 how each prescription, and any future decision-making process that might appear to be independent of this federal authorization, is tied to the federally authorized 401 process. If the Deputy Director is accorded discretion on matters described in the 401, that discretion as well should be exercised with a clear line to the 401 process and certification. In order to protect beneficial uses, the Board must set conditions that are defensible procedurally as well as substantively.

The structure of the third Draft 401 for Oroville, like the two before it, fails in several places to draw clear lines to the Board's federally mandated authority. Conditions are often structured so that licensee DWR must present a plan to the Deputy Director for approval in order to comply with a certain requirement (such as water temperature). This approach could become subject to challenge should DWR refuse to submit a plan to install an effective temperature control device at Oroville, or should DWR refuse to establish an enforceable cold water pool, if other measures taken by DWR were to prove insufficient to meet the temperature requirements established in the license. In order to achieve compliance, the State Board might then be compelled to order, on its own motion, that these measures be implemented by DWR. Such an action by the Board on its own motion could be construed as going beyond the authority of the 401. Contrary to the contention of the State Water Contractors, an iterative process to achieve compliance is not precluded by federal pre-emption. Under *Karuk*, as well as *S.D. Warren* and *PUD No. 1*, there is clear federal authority for a Clean Water Act Section 401 prescribing entity to enforce the requirements it sets forth in a 401 water quality certification.¹³ However, in order to fulfill the requirements of the 401, any adaptive management by the Board should be clear on the front end, ***in the 401 document itself***, on process, decision points, and decision-making criteria, scope of action and level of required effort.

¹² Ibid, p. 33.

¹³ As cited in *Karuk v. Regional Board*, quoted above.

The Board must also set, under the 401, flow requirements from Lake Oroville necessary to protect beneficial uses, and in particular Delta flow, in the Sacramento - San Joaquin Delta

On page 15 of the *Delta Flow Criteria Report*, the State Board describes the Board's authority generally under Section 401 of the Clean Water Act. The Board says that it will be issuing 401 certifications for more than 25 Delta tributary dams that will go through the relicensing process by 2016. The Board states: "Information developed as part of the relicensing of these projects will be used to inform on-going Bay Delta proceedings, and any information developed in the State Water Board's Bay Delta proceedings will be used to inform the two water quality certifications."¹⁴ It is completely unclear which "two water quality certifications" are being referenced. More importantly, it is not stated by the Board whether it plans to set Delta flows from FERC-licensed facilities within the context of the 401's for the FERC processes; only an exchange of information is referred to. If the Board does not plan to require Delta flows under the 401 process from watersheds where FERC licenses facilities, it needs to state under what authority it plans to require such flows and, in order to protect beneficial uses, show why that authority is defensible.

The Board needs to consider the potential consequences of having no ability to require Delta flow by placing conditions on the operation of Lake Oroville outside the flows required by the Settlement Agreement. Numbers aside, if the Board is considering criteria that set Delta flows based on a percentage of spring unimpaired for the Sacramento Basin, this will run squarely into the "normal operation of the project," which makes most of its storage releases after July.

If the Board is contemplating a new water rights permit term (or terms) to address future Delta outflow requirements, it should consider placing a similar term in the 401 for Oroville. However, we would prefer that the Board set forth in this 401 as much on Delta flow as it can in explicit terms.

If the Board chooses not to assign a proportion of Delta outflow within the 401, or at least to structure a defensible reservation of authority to do so in the future, the Board should then issue or require issuance of a supplement to the EIR that discloses the impacts of the separation of the operation of the Oroville Facilities within the 401 from consideration of requirements for increased Delta outflow.

The third Draft 401 allows the Deputy Director to change temperature standards, without clearly identifying measures that must first be carried out by DWR

There is a decision tree outlined in Section S8(b) that states that the licensee must develop a plan for facilities modification within three years of license issuance if it cannot meet the water temperatures in Table S8. However, there are no sideboards placed on how it must operate the reservoir, or on what potential modifications shall include. If the licensee undertakes limited facilities modifications, and still after ten years cannot

¹⁴ Draft *Delta Flow Criteria Report*, July 20, 2010, p. 15.

comply with the temperature requirements, does the Deputy Director then alter the requirements, or does he or she require further modifications? If a full blown temperature control device such as that on Lake Shasta is not installed, and DWR cannot comply with temperature requirements, all the while dropping the reservoir each year to 1,000,000 af of water in storage, can DWR then suggest to the Board that temperature requirements cannot be feasibly achieved?

The 401 should specify with greater precision the measures and the level of effort that will be required before the Deputy Director considers exercising his or her discretion to change water temperature standards (per S8(f)). It should not allow changes in the temperature standards unless a temperature control device built to the standards of the device at Shasta Lake has first been installed and implemented at Lake Oroville.

Floodplain improvements (S6) in the lower Feather River will have little benefit if flows from Lake Oroville are managed so that, except in very wet years, the first half of every year in the Lower Feather River is effectively a dry or even critically dry year.

The work of Mesick, del Rosario, Sommer, Jeffres, Moyle and many others suggests that the salmonid lifestage that benefits most from floodplain inundation is the juvenile lifestage. Mesick and Marston (2008)¹⁵ in particular show the benefits of floodplain inundation in the Tuolumne River, far upstream of the Delta, and that important rearing of salmon in the floodplain habitat there has substantial benefits from February through the period of juvenile outmigration into May or June.

The Oroville Settlement Agreement contemplates improvements to the floodplain in the Low Flow Channel of the Feather River. However, Section S6(b) of the third draft 401 requires only “a screening level analysis of proposed riparian/floodplain improvement projects, including how flood/pulse flows may contribute to floodplain values and benefit fish and wildlife species” within one year of license issuance. Within 15 years of license issuance, licensee must submit a “Phase 3” recommended alternative for riparian and floodplain habitat, which “shall include a reevaluation of how flood/pulse flows may contribute to floodplain values and benefit fish and wildlife” Ultimately, 25 years after license issuance, “the licensee shall complete construction of the recommended alternative.”¹⁶ Nowhere does it say how much if any *water* will be devoted to support “floodplain values” or when it will be used for this purpose. In fact, not one drop of water is firmly and clearly committed to support this aspect of the settlement.

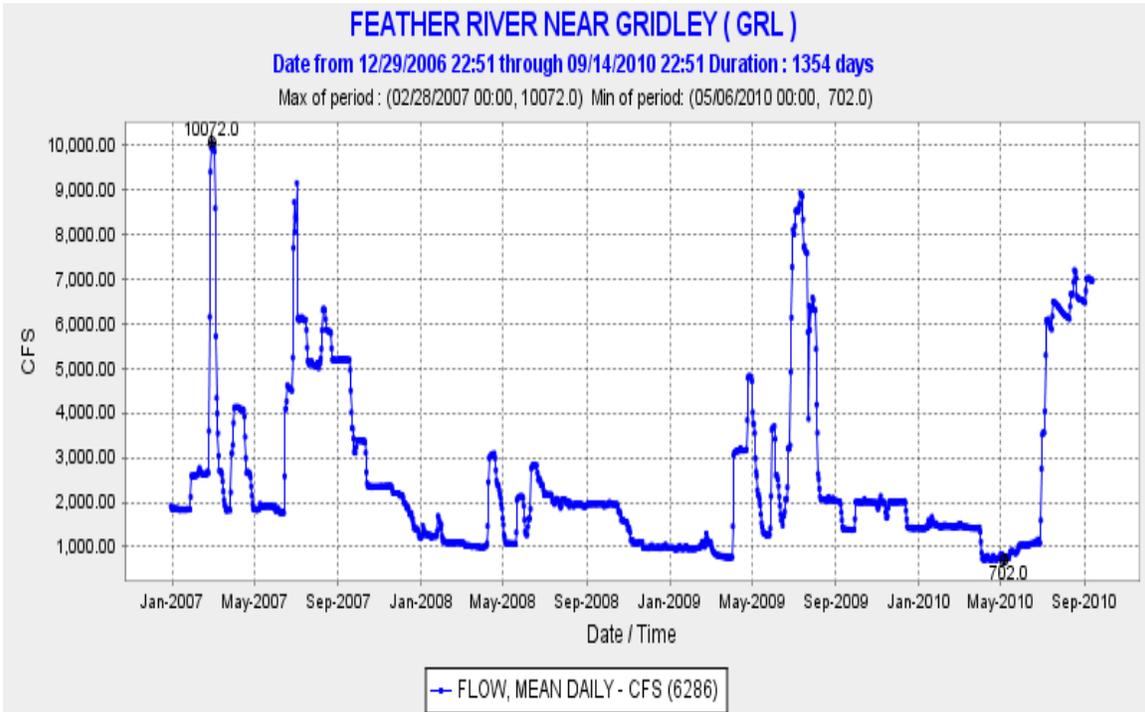
The Board should establish a range of alternatives for floodplain inundation and a clear decision tree for determining how much water must be used in order to achieve it. Such consideration dovetails with the need for spring releases to support Delta outflow, salmonid outmigration, spring-run Chinook upstream migration, and general re-creation of the natural hydrograph downstream of Lake Oroville.

¹⁵ Mesick, C.F., J. McLain, D. Marston, and T. Heyne. *Draft limiting factor analyses & recommended studies for fall-run Chinook salmon and rainbow trout in the Tuolumne River*. August 13, 2008.

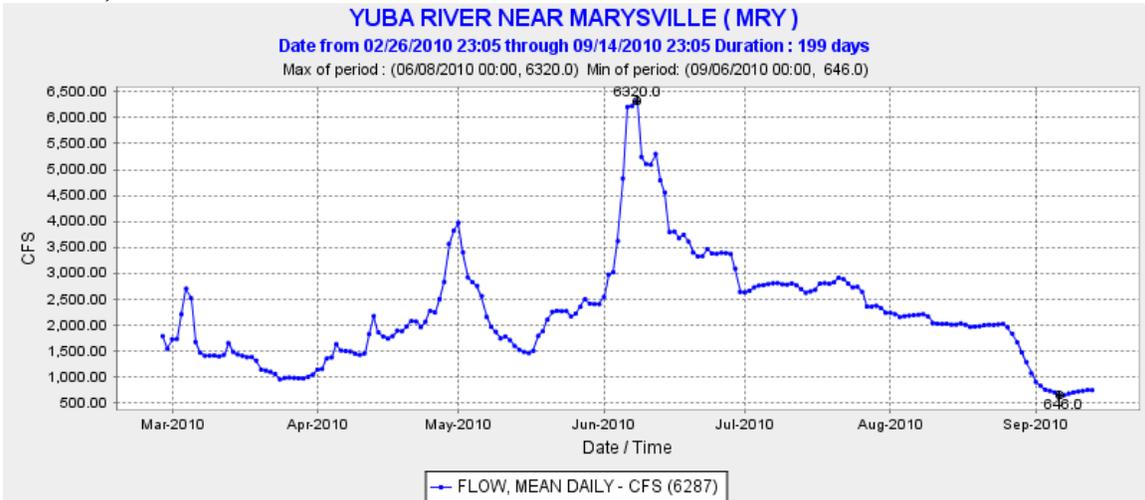
¹⁶ Quotes in this paragraph are from the third draft 401 Certification, pp. 26-27.

The operation of Lake Oroville causes the Oroville hatchery to have impacts on spring-run Chinook salmon in the lower Yuba River

Far from the natural pattern of high spring flows that promote the rearing of juvenile salmonids, DWR, since it operates Lake Oroville largely for exports, releases very little water in the spring. The lower Yuba, on the other hand, whose water is delivered more for local use than for export, often sees high spring pulses, in normal as well as wet years.



On the lower Feather, at some time around the first of April, some local releases appear to be made in each year, likely for relatively local irrigation; but big flows don't seem to start until July 1, with exports. This was particularly true in 2010, a relatively wet year compared to the three previous years; in fact, in April through June, flows in 2010 were reduced, often below 1000 cfs.



At the same time in 2010, there were relatively high releases into the lower Yuba, with a high of over 6000 cfs on several days in the first week of June. This was the function of spill in upper watershed reservoirs, and of uncaptured runoff, as well as of releases from New Bullards Bar mandated by the Yuba Accord.

Spring-run Chinook salmon enter the Feather River in May and June. In June of 2010, 2,420 spring-run salmon passed the Vaki Riverwatcher at Daguerre Dam on the lower Yuba operated by the Yuba River Management Team. Of those 2,420 fish, 1,469 were adipose fin-clipped, hatchery fish, virtually all of which are presumed to originate in the Feather River Hatchery.¹⁷ These fish, fish whose existence is designed to partly mitigate the loss of salmon habitat upstream of Oroville Dam, are clearly attracted to the lower Yuba when its flow is six times the flow (or more) of the lower Feather.

Operation of the project in terms of flow and hatchery operation (as a mitigation for project-caused loss of river habitat) increases the incidence of hatchery spring-run straying, competing, and presumably interbreeding with Yuba River spring-run.

In failing to consider the operation of the State Water Project downstream of the Oroville facilities, and in failing to consider effects on fisheries downstream of the facilities, DWR, in its EIR, and the Board, in the third Draft 401, fail both to analyze impacts and to propose management solutions to impacts of the project in the neighboring watershed. Stated more broadly, the hydroelectric project is operated to meet the demands of State Water Project consumptive deliveries, but the impacts of this operation in the Feather and Yuba rivers are not mitigated.

The requirements concerning the replacement of the damaged river valve do not protect beneficial uses

Measure S7(a) requires DWR to “submit a schedule for repair or refurbishment of the river valve, or for implementation of a proposed alternative method for meeting water temperature requirements in Table S7. If licensee proposes an alternative method for meeting temperature requirements, evidence must be submitted that the alternative method will provide equivalent water temperature control as the river valve.” (Third draft, p. 28). Since it has become hypothetical what level of water temperature improvement the valve might have provided, the appropriate measure is for the State Board to require a proposal that substantial evidence shows will meet the temperature requirements. Such evidence needs to show that a proposed improvement will work, not that it will work as well as another improvement might have worked had it not been the case that it did not work.

A measure to protect water temperature must have clear requirements, a clear test of compliance, and clear consequences if requirements are not met, in order to protect beneficial uses.

¹⁷ <http://www.yubaaccordrmt.com/RMT%20Data/RMT%20Update%20%2807-20-10%29.pdf>

The Habitat Expansion Agreement does not contain clear and enforceable requirements that will allow the Board to determine whether the HEA is mitigating for the loss of salmonid and sturgeon habitat

The Board's requirements of the Habitat Expansion Agreement do not tell us how we are going to know the HEA is working or not. In its response to CSPA in Response to Comments, the Board cites NMFS's Recommended Terms and Conditions and Modified Fishways Prescriptions: "We anticipate that the Habitat Expansion Agreement will provide habitat sufficient for a new, geographically separate population greater than 2,000 Central Valley spring-run Chinook salmon, in addition to providing habitat for California Central Valley steelhead."¹⁸

Does compliance mean that we have a new population of with an annual escapement of 2,000 spring-run salmon? Does it mean that there is sufficient spawning habitat for that many salmon to spawn, if they were to arrive? How is that habitat going to be measured, or simply evaluated? Who decides if there is habitat for such a population, whether that habitat is sufficient to support this population over a long period of time, or whether this population is "geographically separate," or at least separate enough?

The Board should specify in the 401 what requirements must be met by the Habitat Expansion Agreement, including metrics and timelines, and what the consequences will be if those requirements are not met. The Board should also explicitly state its authority to require additional measures should the outcome of the HEA prove to be inadequate.

The Habitat Expansion Agreement does not mitigate the loss of fish passage and fish habitat upstream of Lake Oroville

In addition to being unclear, the standard of providing habitat for 2,000 spring-run Chinook is too low. The Board in Response to Comments states: "CSPA has not provided information that the goals agreed to by the fisheries agencies, in combination with the other temperature habitat improvement actions in the water quality certification, are insufficient to mitigate for the loss of habitat upstream of the Oroville facilities."¹⁹ Moyle, in *Inland Fishes of California* (2002), states: "Historical run sizes for tributaries to the Sacramento River were estimated to be ... 8,000-20,000 in the Feather River above Oroville Dam."²⁰ Sommer et al, in *Factors Affecting Chinook Salmon Spawning in the Lower Feather River* (2001), cite Frey (1961) who reported "escapement estimates" for spring-run in the Feather watershed to have been "1000 to about 4000" from 1940 to 1959. This of course was after the West Branch and North Fork Feather were developed for hydropower, blocking passage at numerous points along the river, so most spring-run during this period would have spawned within the present area of Lake Oroville.²¹ While

¹⁸ SWRCB Response to Comments, July 9, 2010, p. 25.

¹⁹ Ibid.

²⁰ Moyle, *Inland Fishes of California* (2002), p. 261.

²¹ The Board should bear in mind that the Habitat Expansion Agreement is supposed to mitigate not only for the impacts to anadromous fish caused by the Oroville facilities, but also by PG&E's three hydroelectric projects on the North Fork Feather River.

Sommer says that most fall-run spawned downstream of the present Oroville Dam, their estimated escapement was 10,000 to 86,000, so subsequent blockage by Oroville Dam would likely have affected significant numbers of fish, even if only a small percentage of the annual fall-run escapement.²² Yoshiyama (2001), in describing the historic distribution of spring-run in the Feather drainage, cites historic presence of these fish as much as six miles upstream of the present Lake Almanor.²³ Lindley et al (2006) cite 1289 stream miles of historic salmonid habitat upstream of Oroville Dam.²⁴ This includes steelhead, which are more able to pass barriers than salmon, but the Habitat Expansion Agreement is supposed to mitigate for loss of steelhead habitat as well as habitat lost to spring-run Chinook.

Spring-run Chinook salmon are listed as threatened under the California Endangered Species Act (CESA), as well as the federal Endangered Species Act. Regarding CESA-listed species, Section 2081 of the California Fish and Game Code states in part:

(b) The department may authorize, by permit, the take of endangered species, threatened species, and candidate species if all of the following conditions are met:

(1) The take is incidental to an otherwise lawful activity.

(2) The impacts of the authorized take shall be minimized and fully mitigated.

The measures required to meet this obligation shall be roughly proportional in extent to the impact of the authorized taking on the species. Where various measures are available to meet this obligation, the measures required shall maintain the applicant's objectives to the greatest extent possible. All required measures shall be capable of successful implementation. For purposes of this section only, impacts of taking include all impacts on the species that result from any act that would cause the proposed taking.

The California Department of Fish and Game is required to issue a consistency determination with a federal Biological Opinion; any determination thus issued must be assure that the requirements of Fish and Game Code Section 2081(b)(2) are met: "The impacts of the authorized take shall be minimized and fully mitigated." Just as the Board has made an independent analysis of certain temperature and other issues relating to the 401 for Oroville, and has altered the Settlement Agreement where necessary to protect beneficial uses, it must also independently evaluate and explain what is needed to make the loss of historic fish passage and fish habitat "fully mitigated." Such an explanation will surely assist DFG in issuing a defensible consistency determination.

²² Sommer, T, McEwan, D, and Brown, R.: *Factors Affecting Chinook Salmon Spawning in the Lower Feather River*. 2001. p. 271.

²³ Yoshiyama RM, Gerstung ER, Fisher FW, Moyle PB. 2001. *Historical and present distribution of chinook salmon in the Central Valley drainage of California*. 2001. pp. 124-128.

²⁴ Lindley, S.T. R.S. Schick, A. Agrawal, M. Goslin, T.E. Pearson, E. Mora, J.J. Anderson, B. May, S. Greene, C. Hanson, A. Low, D. McEwan, R.B. MacFarlane, C. Swanson and J.G. Williams, "Historical Population Structure of Central Valley Steelhead and its Alteration by Dams" 2006.

The Draft 401 contains procedural measures that weaken oversight by both the Board and the public

The notification process for discretionary actions by the Deputy Director does not provide sufficient assurance that interested parties will have the opportunity to timely comment, seek reconsideration, or seek other recourse. The default condition whereby approval by the Board of measures and plans would be granted in the event of non-response by the Board after two to four months, even in cases of major provisions of the 401, ignores realities of senior staff workload and of budget constraints, as well as inappropriately burdening non-governmental entities should they seek reconsideration.

More fundamentally, the Board cannot abdicate its responsibility to enforce the 401 to DWR and the State Water Contractors if the Board cannot for whatever reason respond to an issue, explicitly contemplated in the 401 or not, in a certain timeframe. The Board is required to enforce the Clean Water Act. Such a requirement is not negotiable with DWR, the Contractors, or anyone else.

Conclusion

In the July 9, 2010 Response to Comments, the Board got the statement and defense of its authorities largely right. In the final 401, the Board needs to follow through and exercise those authorities within the 401 Certification.

In the wake of *Karuk v Regional Board*, the Board must, to the degree reasonably possible, explicitly address within the 401 Certification itself all issues that have been or could be raised in regard to the exercise of its Clean Water Act Section 401 authority.

The March, 2006 *Settlement Agreement for the Relicensing of the Oroville Facilities* states, at Section 1.5.8: “Inconsistent with the Settlement shall not mean ... (C) the inclusion in any final Mandatory Terms and Conditions or CWA Section 401 Certification of the issuing agency’s reservation of authority to reopen its conditions, provided that the reservation of authority is consistent with this Settlement Agreement”

However, in its comments on the January (second) draft 401, DWR maintains that enforcement of a 401 is under the purview of FERC alone:

G6. This condition appears to seek to establish independent, direct enforcement of the WQC outside of the FERC process. However, the conditions of the WQC become conditions of the FERC license by operation of law. It is well established that any remedies to a FERC license must be sought before FERC, subject only to judicial review in the U.S. courts of appeals. (*City of Tacoma v. National Marine Fisheries Service*, 383 F.Supp. 2d 89 (D.D.C. 2005)).

Therefore, DWR disagrees that there are ‘any remedies, penalties, process or sanction’ outside of a license amendment or compliance proceeding at FERC for enforcement of the WQC.²⁵

Considering DWR’s aggressive efforts to limit the Board’s authority, despite its earlier, explicit recognition in the Settlement Agreement of the Board’s right to “reopen its conditions,” the Board should exercise its authority within the 401 defensively and expansively.

All contingent actions in the 401, including Board approvals, must, to the greatest degree possible, have clear descriptions, metrics, decision trees and processes prescribed for them.

The Board must either place explicit restrictions on the operation of the State Water Project that protect the coldwater pool in Lake Oroville, water temperatures in the Lower Feather River, and other instream beneficial uses, or else create stand-alone measures for the Oroville Facilities that protect these beneficial uses regardless, or in spite of, the operation of the SWP. Absent effective and enforceable restrictions on the operation of the SWP, the Board must create explicit carryover storage requirements for Lake Oroville to protect the lower Feather River from the consequences of excessive water demand by the oversubscribed State Water Project.

The Board must explicitly prescribe, or defensibly reserve its authority to prescribe, the contribution of the Oroville Facilities, and of the Feather River watershed upstream of the Yuba River, to increased Delta outflow and to Delta water quality.

The Board must prescribe sufficient spring flow in the Feather River to mitigate the effects of the Feather River fish hatchery on native salmon and steelhead in the Yuba River.

The Board must set clear measures that require DWR to achieve compliance with water temperature standards downstream of Lake Oroville. The Board must set forth the process, decision points, and decision-making criteria, scope of action and level of effort that will be required of DWR to meet these standards. No level of effort short of a temperature control device built for Lake Oroville to the standards of the device on Lake Shasta should be allowed before any consideration is given by the Deputy Director to relaxing water temperature standards in the lower Feather River

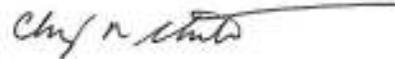
The Board must set clear metrics that will “fully mitigate” the loss of fish passage and upstream habitat caused by the Oroville Facilities and the PG&E hydroelectric projects upstream. The Board must require and enforce alternative actions if the outcome of Habitat Expansion Agreement does not measure up to the level of mitigation set forth by the Board.

²⁵ DWR comments on General Condition G6 in the January 21, 2010 draft 401 Certification. DWR comments were submitted February 23, 2010. Quote from pp. 15-16.

The Board must set procedural defaults that allow for timely and complete notice of actions pending in the implementation and enforcement of the 401, and must retain and exercise its authority over actions specified in the 401. All cases of default acceptance of plans submitted by DWR, in the absence of response by the Board, should be stricken from the 401 Certification.

CSPA appreciates the resolve of the Board in its efforts to issue a 401 Certification for the relicensing of the largest non-federal storage facility in the state of California that is clear, enforceable, defensible, and protective of beneficial uses. We appreciate the opportunity to submit these comments in furtherance of that effort.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Chris Shutes", with a long horizontal line extending to the right.

Chris Shutes
FERC Projects Director
California Sportfishing Protection Alliance