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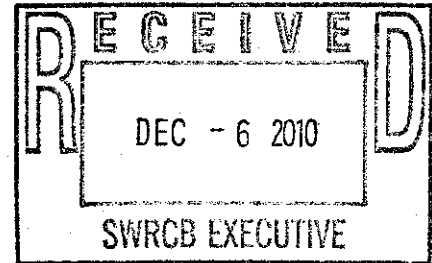
1/6-7/11 Bd. Wrkshop  
SJR Technical Report  
Deadline: 12/6/10 by 12 noon

Attorneys at Law

SENT VIA EMAIL ONLY: bay-delta@waterboards.ca.gov

December 6, 2010

State Water Resources Control Board  
PO Box 2000  
Sacramento, California 95812-2000  
Attn: Kari Kyler



Re: *November 2010 SJR Flow and S. Delta Salinity Response*

Dear Ms. Kyler:

Accompanying this letter, please find the San Joaquin River Group Authority's first set of comments on the Draft Technical Report concerning the potential modifications to San Joaquin River flow and southern Delta salinity objectives included in the 2006 Bay-Delta Quality Control Plan.

Very truly yours,

**O'LAUGHLIN & PARIS LLP**

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TIM O'LAUGHLIN

cc: SJRGA

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# SAN JOAQUIN RIVER GROUP AUTHORITY'S RESPONSE TO DRAFT TECHNICAL REPORT

## I. INTRODUCTION

On October 29, 2010, the State Water Resources Control Board ("SWRCB," or "Board") issued a notice of a public workshop to be held on January 6 and 7, 2011. The purpose of the workshop is to receive comments and other technical information related to its draft Technical Report ("DTR") on the scientific basis for alternative San Joaquin River flow and southern Delta salinity objectives. Interested parties were given until Monday, December 6, 2010 to submit written comments on the DTR. This reply is submitted on behalf of the San Joaquin River Group Authority ("SJRGA") and its member agencies.<sup>1</sup>

The October 29, 2010 notice specifies two questions that the Board will address at the workshop:

- Question 1. Whether the information and tools in the DTR are sufficient enough to inform the Board's decisionmaking to establish San Joaquin River flow and southern Delta salinity objectives, and a program of implementation to achieve those objectives?
- Question 2. Should the Board consider additional information or tools to evaluate and establish San Joaquin River flow and southern Delta salinity objectives, and a program of implementation to achieve those objectives?

As will be set forth in greater detail in our responses, the SJRGA contends that the answer to these two inquiries is as follows:

- Answer 1. No. The information and tools contained in the DTR are insufficient to provide a scientific basis for amending the San Joaquin River flow objectives established in the 2006 Bay-Delta Water Quality Control Plan

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<sup>1</sup> Modesto Irrigation District, Turlock Irrigation District, Merced Irrigation District, South San Joaquin Irrigation District, and Oakdale Irrigation District, San Joaquin River Exchange Contractors Water Authority, Friant Water Authority, and the City and County of San Francisco.

("WQCP"). The DTR contains no new information, and fails to establish a foundation for setting objectives and a program of implementation with regard to flow.

Yes. The information and tools contained in the DTR are sufficient to enable the Board to consider an amendment the southern Delta salinity objectives.

- Answer 2. Yes. The Board is legally obligated to consider additional information. In particular, the Board must consider factors in the Delta affecting salmon and steelhead other than flow including, but not limited to, predation, ocean harvest, invasive species, the lack of wetlands and floodplains, toxics, hydraulics, in-Delta pumping, and channel dredging, in order to appropriately consider the role of flow objectives and water quality conditions that may reasonably be achieved through the coordinated control of all factors which affect water quality in the area.

The SJRGA's response is comprised of four (4) parts. This particular document will address the legal, policy, and process issues raised by the Board's intended use of and reliance on the DTR. Two additional documents will be submitted simultaneously herewith: a comprehensive review and critique of the DTR, including sections on salinity and biology; and a supplemental appendix of reports, data, and information not included in the DTR that are relevant to the analysis of the importance of flow to the salmon and steelhead fishery in the Delta.

This response will not address the information requested in your supplemental notice dated November 22, 2010. The SJRGA will be responding separately to that request for more general information.

## II. PROCESS

### A. The Board Unilaterally Abandoned the Established Process.

On February 13, 2009, the SWRCB initiated the process to consider amendments to the 2006 Bay-Delta WQCP for both San Joaquin River flow objectives and southern Delta salinity. On that date, the Board issued a notice of both a scoping meeting for the

environmental documentation and staff workshop. The February 13, 2009 notice of workshop requested “technical information” that the Board needed to consider when determining whether or not the objectives should be amended, what the amendments should be, and how the program of implementation would work. The notice identified seven specific topics on which it wanted to receive technical information, including:

1. Beneficial Uses in the San Joaquin River Basin and Southern Delta:
  - a. Agriculture
  - b. Fish and wildlife
  - c. Other constraining beneficial uses
  
2. Hydrology of the San Joaquin River Basin:
  - a. Unimpaired hydrology
  - b. Current hydrology and near-future hydrology
  - c. Climate change impacts on hydrology
  - d. Modeling
  
3. Water Use in the San Joaquin River Basin and Southern Delta:
  - a. Agriculture
  - b. Fish and wildlife
  - c. Municipal and industrial
  - d. Hydroelectric power
  - e. Diversions to storage
  - f. Priority of diversions
  
4. Factors Affecting Salinity in the San Joaquin River Basin and Southern Delta:
  - a. Contributions of salinity from various factors
  - b. Current control efforts
  - c. Climate change
  - d. Modeling
  
5. Protection of Agricultural Beneficial Uses in the Southern Delta Related to Salinity:
  - a. Salinity objectives
  - b. Flows
  - c. Barriers
  - d. Source control options
  - e. Current and future regulatory processes
  - f. Other considerations
  - g. Modeling

6. Factors Affecting Fish and Wildlife Beneficial Uses in the San Joaquin River:
  - a. Flow quantity and timing
  - b. Temperature
  - c. Habitat
  - d. Dissolved oxygen
  - e. Contaminants
  - f. Entrainment
  - g. Predation
  - h. Climate change
  - i. Modeling
  
7. Protection of Fish and Wildlife Beneficial Uses in the San Joaquin River:
  - a. Flow objectives
  - b. Barriers
  - c. Temperature control
  - d. Habitat
  - e. Dissolved oxygen
  - f. Contaminants control
  - g. Entrainment control
  - h. Other considerations
  - i. Modeling

Written comments conveying technical information pertinent to these seven topics were due on April 6, 2009.

On March 27, 2009, the SWRCB issued a revised workshop notice that identified dates and times for an additional seven (7) workshops to further discuss proposed amendments to the San Joaquin River flow objectives and southern Delta salinity. On April 17, 2009, after the SJRGA and others submitted their comments for the April 22, 2009 workshop, the Board issued a second revised notice. This notice identified proposed modeling alternatives and requested comments on or before May 15, 2009.

The SJRGA submitted comments on the proposed modeling alternatives identified in the April 17, 2009 revised notice, and participated in the initial April 22, 2009 workshop. At the workshop, Board staff made a presentation that illustrated the difference between unimpaired flows and historically observed flows, and then indicated

that they planned to develop alternatives based on percentages of unimpaired flow to serve as hypothetical “bookends” for the Substitute environmental Document (“SED”). The consistent themes from public participants at the workshop were twofold. First, they could not reasonably respond to the March 22, 2009 Notice (or the subsequent revised notices), because the SWRCB Staff had not first established a project baseline. Second, insufficient information was available to comment on the proposed modeling alternatives for salinity, because the Hoffman Report had not been finalized.

On May 5, 2009, the SWRCB cancelled the workshops scheduled for May 8 and May 18, 2009 without explanation. Similarly, a notice on June 1, 2009 cancelled the workshops scheduled for June 3, 16 and 25, 2009 without explanation, and noted that the SWRCB was continuing to work on the modeling alternatives and that “staff will provide additional information regarding other meeting dates in the near future.”

A workshop was held on June 19, 2009, at which the Board staff only provided an update on modeling activities.

Between June 19, 2009 and the release of the DTR on October 29, 2010 – a period of 16 months - the SWRCB did not communicate at all regarding the San Joaquin River flow objective.<sup>2</sup> There were no workshops scheduled, no reports released, no models released for public comment and no requests for additional technical information on any of the identified topics of importance. Having laid out a thorough, open, transparent, lengthy and honest process designed to obtain information from all interested parties on all aspects affecting the Delta, the Board simply walked away from such

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<sup>2</sup> The Board did release, obtain comments on, and receive the final report of Dr. Hoffman concerning crop salt tolerance in the summer and fall of 2009. While acutely relevant to the southern Delta salinity objectives, this report and the associated process had no relevance to the San Joaquin River flow objectives.

process with nary a word of explanation. Given the obvious importance of the Delta to the State, its citizens and the regulated community deserve better.

Unfortunately, the Board's failures do not end with the abandonment of the established process, but rather only begin there, for while the Board was silent, it was not idle. The parties have since discovered that during the 16 months of radio silence, the Board developed and issued a Request for Proposal ("RFP") and hired a consultant to prepare the SED, met privately with the California Department of Fish and Game ("DFG") to discuss its Salmon Population Model, and met privately, negotiated, and reached an agreement with the Department of Water Resources ("DWR") and United States Bureau of Reclamation ("USBR") to perform modeling for the Board. These actions were taken outside of public purview, and when asked to provide the records related to these actions under the Public Records Act, most were withheld under the guise of being "draft" or "predecisional."

After 16 months of seeming inaction, the SWRCB sent the parties to the proceedings a "Draft Technical Report" and required written comments within 30 days. This is utterly irresponsible for several reasons. First, as discussed above, the parties were unaware of the actions being taken by the Board. The DTR does not appear in the timeline for review (last updated on October 15, 2009), in any Schedule of Element Action Table, or in any Quarterly Reports to the SWRCB for the Strategic Workplan for the Bay-Delta. The last update to the Strategic Workplan, entitled "Schedule of Element Actions Table, 4<sup>th</sup> Quarter 2009 Update," was submitted in January 2010. This schedule

includes an itemized list of the major action items, but tellingly does not include the DTR. There have been no further updates.<sup>3</sup>

Second, in the absence of any warning that the DTR was being prepared for release, 30 days is an insufficient amount of time to prepare an adequate response to the issues raised by the DTR. There is an old saying that procrastination on your part should not constitute an emergency on our behalf. The parties should not be forced to pay the price for the Board's abandonment of the process established back in February 2009; the issues are simply too important to be dealt with in this fashion.

B. The Proposed Process is Fundamentally Flawed.

The Strategic Workplan and the DTR both seem to indicate that the Board will utilize a process by which the objectives are amended and a plan of implementation is developed concurrently. If so, there are potentially serious due process issues. By all accounts, the DTR is going to be the basis for the amendments to the San Joaquin River flow objectives. However, the SJRGA understands that the DTR was written by Board staff. As such, all staff who worked on, reviewed, and directed the DTR must be identified, and the rules regarding internal separation and ex parte communications plainly stated and explained to avoid an unacceptable risk of bias. (*Morongo Band of Mission Indians v. State Water Resources Control Board* (2009) 45 Cal.4<sup>th</sup> 731, 739-739).

Putting aside the potential for bias issue, the process will seem to rely almost exclusively on the DTR as the basis for any amendments to the San Joaquin River flow objectives. This is inappropriate and contrary to law, as the Board must consider all beneficial uses when considering amendments to a basin plan. (Water Code §13241).

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<sup>3</sup> Without direct communication on the Strategic Workplan, parties to the proposed action have been relying on the website for periodic updates and management of timelines for submittals and responses to report releases by the Board. The DTR was never listed on the website or in a public update on the process.



What the salmon and steelhead beneficial uses need is but one item that the Board must consider, and as established, it appears that the Board has little interest in seriously developing, examining or considering other beneficial uses. Although the Board's November 22, 2010 supplemental notice does request additional information, it does not request any information on any specific topic. Rather, it seeks any and all information "that will not be addressed" in the January workshops on the DTR. Thus, the Board has made it clear that the information it will consider includes "what the fish need" as laid out in the DTR, and then "everything else." This is a far cry from either the requirements of the Water Code, or the process established by the Board in February 2009.

C. Additional Information Must Be Released By the Board Before It Requires the Parties to Submit Any Additional Information.

Since the Board is requiring the parties to submit all additional information in one omnibus package, it simply must release additional information to inform the comments, questions and criticisms the parties may have. Specifically, the Board must release the following:

- The RFP that was sent out for a contractor to assist the Board, the identity of the firm that was hired, and the scope of work, budget, timeline, and deliverables.
- Any and all correspondence, internal memoranda, and other documents relating to the amendment of the San Joaquin River flow objectives being considered and developed. These documents should be released unless protected by the attorney-client privilege, even if they might otherwise be protected and withheld under the Public Records Act.
- Whether or not DWR and/or USBR have agreed to do the modeling, as set forth in the correspondence dated May/June 2010. If so, the scope of work, budget, timeline, and deliverables.
- Whether or not there will be any workshops on any of the topics identified in the March 27, 2009 notice. Have they all been permanently cancelled? How and to whom do the parties submit information and data for the

Board to consider? Should Board members be copied to insure that information submitted to staff is considered by the Board?

- What is the timeline for this process?
- What are the milestones?
- The Board should give due consideration to the interests of the regulated community, and not impose limited response times upon the regulated community due to the Board's procrastination over the last two years.

Finally, the DTR is scheduled to be peer reviewed after the January workshops.<sup>4</sup>

Depending upon the outcome of the peer review process, the DTR may undergo significant change. It is completely inappropriate to require the parties to submit information "that will not be addressed" regarding the DTR without knowing what all of the issues relevant to the DTR even are. At a minimum, the requirement for submitting additional information must be put off until the DTR has been peer reviewed, amended and finalized to insure that the parties have the opportunity to properly submit relevant information to the Board.

### III. SHORTCOMINGS OF THE DTR

#### A. Failure to Adhere to Legal Scope Leads to Irrelevant Discussion and Analysis.

At page 34, the DTR describes the scope of the inquiry as:

"... While SJR flows upstream of the Bay-Delta, including SJR tributary flows, are important to the protection of fish and wildlife beneficial uses [the focus of this water quality control planning effort is on the Bay-Delta.] The legal boundary of the Delta on the SJR is at Vernalis, where the lower SJR flows directly until the southern Delta. Accordingly, the focus of this review is on SJR flows at Vernalis for the protection of fish and wildlife beneficial uses ..."

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<sup>4</sup> In this regard, the SJRGA joins in and supports the comments submitted by the SWP contractors on the peer review process.

Put another way, the scope can be understood to be:

What flow objectives at Vernalis, from February-June, are necessary to protect fall-run Chinook salmon and steelhead migrating from the SJR in and through the Bay-Delta, weighing and balancing other competing reasonable and beneficial uses?

While these two statements appear to define the scope in terms of geography and timing, a closer look shows that these are but subsets of the legal scope of the inquiry as defined by the Board.

The Board has authority under Sections 13170, 13240, 13241 and 13242 of the Water Code to establish water quality objectives to insure the reasonable protection of beneficial uses. However, such authority is limited to specific water bodies as selected by the Board. In this case, the Board has made it clear that it intends to amend the existing water quality objectives established in the 2006 WQCP. (*See, e.g.*, October 29, 2010 Notice, p. 1). Having defined the *legal* scope of its authority to be limited to the Bay-Delta, the Board is unable to expand such scope *as a factual matter* to include other water bodies, except as necessary to achieve the objectives in the Bay-Delta. Based upon the legal scope, the proper factual scope of the inquiry is properly limited to (a) the geographic area of the Delta, (b) the time period between February 1 and June 1 and (c) the specific salmon or steelhead life stage located in the Delta in the February-June timeframe.

While the DTR recognizes the proper scope of the Board's inquiry, it nonetheless fails to adhere to that scope. Indeed, large portions of the DTR are spent discussing items and issues that are not within the legal scope of the Board's inquiry, nor in the proper geographic, temporal or life stage subset of the proper legal scope, including eggs (DTR, p. 38-39, 44-45), fry (DTR, p. 38-39, 44-45), geomorphologic process in the tributaries

(DTR, p. 64), gravel in the tributaries, (DTR, p. 37-38, 44-45, 64-65) temperatures in the tributaries (DTR, p. 37-38, 44-45, 64-65), food production (DTR, p. 63), floodplain habitat upstream of Vernalis (DTR, p. 63), and turbidity (DTR, p. 48, 64). Understanding these factors in the global sense may have some limited value, but they are beyond the scope of the Board's inquiry. Unless the Board can establish a link between any/all of these factors and fish and wildlife beneficial uses "in and through the Delta," which has not been done in the DTR, such factors are simply not relevant.

B. DTR Fails to Adequately Describe the Goal of Amended San Joaquin River Flow Objectives.

The DTR states that the San Joaquin River flow objectives may be amended "for the reasonable protection of fish and wildlife..." (DTR, p. 1). Indeed, "protection" is the word of choice used when discussing the problems, goals, approaches and alternatives. (See, e.g., DTR p. 34, 35, 60, 65, and 66). Yet, at no point is the term "protection" defined or described in a manner that lends itself to quantification. This is troubling for two reasons. First, it will be difficult for the Board to conduct the necessary weighing and balancing of the benefits to be derived and the water costs necessary to achieve the benefit if the benefit cannot be described in more concrete terms. Second, absent a clear understanding of what "protection" means, the parties will be unable to gauge the progress toward, or achievement of, the goals of the revised basin plan.

The SJRGA recognizes that "protection" can be measured in a whole host of ways, and the SJRGA has no suggestion as to what the appropriate measure of "protection" should be. Nonetheless, the Board must clearly identify what the amended flow objective will be designed and intended to achieve (i.e., "protect") before adopting any such amendment.

C. DTR Confuses Establishing Objectives With Determining Impacts.

It seems that so much of the DTR is focused in geographic areas and temporal periods outside of the legal scope in an effort to determine what flows are achievable. While determining feasibility is critical, such determination has no place in the process where the Board is determining whether or not the current flows adequately protect the salmon and steelhead within the Delta and, if not, what new or additional flows are necessary.

A proper inquiry would begin with an in-depth look at the baseline in the Delta, including all relevant factors such as flow rates, durations, magnitude, passage through the Delta, in-Delta diversions, levees, temperature, dissolved oxygen levels, toxics, and predation. Once this baseline was properly established, the Board could determine if flows were adequate, and if not, could begin to run scenarios against the baseline to determine what additional flows or other actions, if any, were needed to provide adequate protection. Assuming the Board was able to determine that a specific level of additional flow was needed, at that point it must determine whether or not such flows would unreasonably affect other beneficial uses. (Wat. Code § 13241; Cal. Const., Art. X, Sec. 2). This analysis is not contained in the DTR.

Essentially, the analysis in the DTR reveals that Board staff has completely skipped the question of what flows or other actions, if any, are necessary to protect salmon and steelhead in and through the Delta, and instead jumped ahead to its functional equivalent analysis. In so doing, the DTR has perhaps jump-started the necessary environmental and feasibility analysis, but has done nothing to inform the Board as to

what flows or other actions are necessary at Vernalis between February and June to protect salmon and steelhead in and through the Delta.

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D. DTR Fails to Establish A Causal Link Mechanism Between Recommended Flow and Expected Benefit.

Within the parameters of the legal scope, the Board must establish a link between the recommended flows and the expected benefit to the salmon and steelhead located in the Delta in the February-June timeframe. The DTR fails to do this and relies entirely too much on general studies and propositions that equate "more" flow with "better" conditions. While there may well be studies, for instance, that indicate that increased flow results in increased food production, such studies are not specific to the Delta and the DTR provides no link between such studies and protection of salmon and steelhead in and through the Delta in the February-June timeframe.

For purposes of determining whether or not the flow objectives need to be amended, and if so, how, the SJRGA supports the construct proposed by the Delta Environmental Flow Group in February 2010 that recommends that the functions of flow be evaluated. Using this approach, for each identified function, the Board should determine if there is a negative, neutral, or positive benefit due to the increased flow given the geographic, temporal and life stage limitations that are applicable. If possible, any benefits should be quantified such that the parties can evaluate whether or not such benefits are actually achieved once the increased flows are implemented. If for any reason the expected benefit cannot be quantified, it should be expressed qualitatively with as much detail as possible.

While the DTR does not contain this type of rigorous analysis, the technical analysis submitted herewith by the SJRGA indicates that many of the relevant functions cannot be shown to improve with increased flows at Vernalis in the February-June timeframe. This will be discussed in greater detail in the SJRGA's technical report, but a quick look at one function, inundated floodplain habitat, will illustrate the problem. The DTR cites to studies and work on the Consumnes River and Yolo Bypass, and then applies the findings to the San Joaquin River<sup>5</sup> and southern Delta. This analysis is faulty for several reasons, including (1) these two areas are geomorphologically different from the San Joaquin River and southern Delta such that inundation of the San Joaquin River floodplain would not improve rearing habitat for outmigrating salmon smolts, (2) the San Joaquin River and Delta contain heavily rip-rapped levees, and there is no evidence that there is floodplain habitat capable of being inundated with higher flows, and (3) there is no evidence that steelhead are dependent on or will even use inundated floodplain habitat. That is, when the specific functions associated with inundated floodplain habitat is looked at within the confines of the geographic, temporal and life stage constraints established by the Board, the evidence demonstrates that such functions are not improved by increased flow and therefore cannot be used as a justification for an amended flow objective.

E. DTR Focuses on Salmon and Steelhead, and not on "Fish and Wildlife Beneficial Uses."

As stated in the DTR, the beneficial use to be protected by the proposed amendment to the San Joaquin River flow objective is fish and wildlife. (DTR, p. 34-35).

However, there is no mention of any "wildlife" in the DTR, and no discussion of any

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<sup>5</sup> It should be noted that any inundated floodplain outside of the Delta is beyond the legal scope of this proceeding.

“fish” save for salmon and steelhead. The DTR tries to justify its focus on salmon and steelhead by making the unsubstantiated claim that such fish “are among the most sensitive to inflows from the SJR.” (DTR, p. 34). Even assuming this factual statement is correct, it is insufficient to explain how such focus satisfies the Board’s legal obligation to protect “fish and wildlife” generally. The DTR’s focus begs the question of whether salmon and steelhead constitute the “fish and wildlife beneficial use” the Board intends to protect, or whether salmon and steelhead are being used as a surrogate for all fish and wildlife species in the Delta.

The response to this question is critical, as it will inform the response from the regulated community. If salmon and steelhead constitute the beneficial use to be protected, the parties can be reasonably certain that additional amendments, seeking additional flows or other changes, will be in the offing to protect other beneficial uses such as Delta smelt, longfin smelt, and green sturgeon. On the other hand, if the salmon and steelhead are merely surrogates for these and other beneficial uses, then as discussed above the Board must explain the relevant functions and quantify the expected benefit to such functions that can be expected from the proposed amendment to the San Joaquin River flow objective.

#### F. Approach Taken In DTR Violates Water Code

The Board offers the DTR as the “scientific basis” for changes to the San Joaquin River flow objectives, but the DTR’s singular focus on “what fish need” is contrary to the Board’s obligation to consider all factors and demands when evaluating issues affecting water quality. Regardless of the veracity of the DTR, the Board must obtain and consider a tremendous amount of additional information before it can contemplate the need of an



amendment to the San Joaquin River flow objectives. No one factor, including “what the fish need,” is sufficient to enable the Board to justify an amendment to objectives established in a water quality control plan.

The Legislature provided general guidance to the Board on how it must approach water quality issues, and declared:

[A]ctivities and factors which may affect the quality of the waters of the state shall be regulated to attain the highest water quality which is reasonable, considering all demands being made and to be made on those waters, and the total values involved, beneficial and detrimental, economic and social, tangible and intangible. (Water Code § 13000 (emphasis added)).

Commensurate with its general guidance, the Legislature provided the Board even more detailed instructions concerning the adoption of water quality objectives. The Legislature requires the State Water Board to “establish such water quality objectives . . . as in its judgment will ensure the reasonable protection of beneficial uses and the prevention of nuisance.” (Water Codes §13241.) To achieve that mandate, the Board *shall* consider all of the following:

- (a) Past, present, and probable future beneficial uses.
- (b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.
- (c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.
- (d) Economic considerations.
- (e) The need for developing housing within the region.

(f) The need to develop and use recycled water. (Id.)<sup>6</sup>.

Relying on these statutory authorities, the court in United States v. State Water Resources Control Board (1986) 182 Cal.App. 3d 82, 109-110, explained that the Board must engage in balancing of all competing needs and interests to develop objectives which will reasonably protect beneficial uses:

“In formulating a water quality control plan, the Board is invested with wide authority ‘to attain the highest water quality *which is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible.*’ (§13000). In fulfilling its statutory imperative, the Board is required to ‘establish such water quality objectives . . . as in its judgment will ensure the *reasonable* protection of beneficial uses . . .’ (§13241), a conceptual classification far-reaching in scope (fn. omitted). ‘Beneficial uses of waters of the state that may be protected against quality degradation include, but are not necessarily limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation’ and preservation and enhancement of fish, wildlife, and other aquatic resources or preserved. [§13050, subd. (f).] Thus, in carrying out its water quality planning function, the Board possesses broad powers and responsibilities in setting water quality [objectives]. . . .” (id. at 109-100)(emphasis added).

The Court’s emphasis on the balancing of competing values clearly follows the mandate of Article X, Section 2, of the California Constitution and is consistent with the California Supreme Court’s statement in National Audubon Society v. Superior Court (1983) 33 Cal. 419, 443 that “All users of water, including public trust uses, must now conform to the standard of reasonable use.” (emphasis added). Thus, even the scientifically unassailable needs of a particular beneficial use are not dispositive of

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<sup>6</sup> The Board must also identify sources of funding for any agricultural impacts caused by the adoption of a basin plan amendment when agriculture is affected by the amendment. (Cal.Const., Art XIII B, § 6).

whether a water quality objective should be adopted in the first instance, and/or the nature, extent and scope of any objective should the Board decide to adopt one. Such information merely begins, not ends, the Board's task of balancing various proposals against their impact on other statewide interests. (*See Joslin v. Marin Municipal Water District* (1967) 67 Cal. 2d 132, 140 ["What is a reasonable use of water depends on the circumstances of each case, such an inquiry cannot be resolved in *vacuo* isolated from statewide considerations of transcendent importance."])).

In the DTR, there is no consideration of any other beneficial uses of water or the associated impacts of releasing water to protect this particular beneficial use besides "what the fish need." Thus, the DTR cannot be the "scientific basis" justifying changes to the San Joaquin River flow objectives contained in the 2006 WQCP.

In March 2009, the SJRGA proposed to the Board a comprehensive list of issues and data that would need to be collected and evaluated in order for the Board to develop and adopt new or amended water quality objectives that would be legally and scientifically defensible.<sup>7</sup> This list was then made a part of the Board's March 27, 2009 Notice and proposed workshops. While the Board has seemingly abandoned the process it established in February and March 2009, it remains bound by the requirements of the Constitution and the Water Code. Whether it re-initiates the original process, starts a new process, or takes some other course, the Board will not be able to adopt a legally and

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<sup>7</sup> The SJRGA sued the Board on adoption of the 1995 WQCP Plan for two primary reasons: (1) there was no analysis under Water Code §13241 of the competing beneficial uses and the impacts to those uses, and (2) there was no science to support the very arbitrary and capricious flow objectives adopted by the Board.

scientifically defensible amendment to the San Joaquin River flow objectives unless and until it goes through the required analysis.<sup>8</sup>

G. Intersection of Basin Plan Amendment and Plan for Implementation.

In the SWRCB Cases, the Court put the Board on notice that the determination as to whether and to what extent water quality objectives should, in the public interest, be implemented by water rights holders must be considered in the quasi-legislative basin planning process.

“The guiding principle is that the Board’s power to act in a water rights proceeding commenced to implement a water quality control plan is constrained by the terms of the plan it is implementing. (State Water Resources Control Bd. Cases (2006) 136 Cal.App.4<sup>th</sup> 674, 729).

The Board can no longer adopt objectives, and then seek to amend, modify or nullify such objectives during the following implementation phase. Whatever objectives the Board adopts, its plan for implementation must achieve.

1. Board Must Use Water Right Priority to Implement Any Amended San Joaquin River Flow Objectives.

The DTR contains statements and information that foreshadow the idea that the Board will seek to implement the new objectives by apportioning the amount of additional flows amongst all water right holders. Such foreshadowing is given in two ways. First, the DTR indicates that the amended San Joaquin River flow objective will be based upon a percentage of “unimpaired flow.” (*See* DTR, p. 80 [“As described in Section 3, flow objective alternatives are stated as a minimum percentage of unimpaired flow for the individual months of February through June.”]). The stated desire to mimic, in some fashion, the natural hydrograph lends itself to the reasonable supposition that the

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<sup>8</sup> The Board’s analysis must also consider climate change, and specifically evaluate the CO2 effects of its proposed action. (2006 WQCP, p. 6). The DTR does not contain either analysis.

necessary additional flows will be obtained by applying some sort of apportionment to the upstream water sources, based on percentage of natural contribution, equitable allocation, or some other method that is applied formulaically.

Further foreshadowing can be found in the DTR's discussion of estimated water supply impacts. While the DTR goes to great pains to state that its examples are merely illustrative, such illustrations all assume that needed flow will come from reduced diversions downstream of the major dams on the Stanislaus, Tuolumne and Merced Rivers. (*See, e.g.*, DTR p. 85). Further, the DTR illustrates impacts by taking the amount of water needed and dividing it by the total number of diversions. (DTR, p. 88-89).

In numerous, previous correspondence to and filings with the Board, the SJRGA has pointed out the problem with such an approach. Unless the Board is willing to risk putting forth a novel legal theory, there is no precedent for apportioning the water deficit among the existing water right holders. The law in California is clear that in resolving water allocation issues, the Board must consider the underlying legal rights of each user and apply the water right priority system. The Board may not attempt to resolve such issues by equitable or other formulaic apportionment that fails to take into consideration the underlying water rights of each affected user. (City of Barstow v. Mojave Water Agency (2000) 23 Cal.4<sup>th</sup> 1224, 1242-1249).

In Mojave, parties argued to the Court that Article X, Section 2 of the California Constitution authorized an equitable apportionment of all water rights "regardless of preexisting priorities." (Mojave, supra, 23 Cal. 4<sup>th</sup> at 1243). The Court disagreed, stating that the water right priority system "has long been the central principle in California water law" (Id. at 1243) and finding that there is no

“precedent for wholly disregarding the priorities of existing water rights in favor of equitable apportionment in this state, where water allocation has been based on an initial consideration of owners’ legal water rights. **Case law simply does not support applying an equitable apportionment to water use claims** unless all claimants have correlative rights; for example, when parties establish mutual prescription.” (*Id.* at. 2148-1249)(emphasis added).

The Court went on to say that even under the physical solution doctrine, water rights could not be allocated equitably as it would impermissibly ignore the priorities of the various water right holders. (*Id.* at 1250). After an exhaustive review of case, theories and doctrines, the Court ultimately concluded that there is no “compelling authority for th[e] argument that courts can avoid prioritizing water rights and instead allocate water based entirely on equitable principles.” (*Id.* at 1251). While the Board does have the power to allocate the burden of meeting water quality objectives based on more than priorities alone, it cannot disregard priorities without substantial justification such as protecting public trust uses under the public trust doctrine or enforcing the Constitutional prohibition against waste and unreasonable use. (*El Dorado Irr. Dist. v. St. Water Resources Control Bd.* (2006) 142 Cal.App.4<sup>th</sup> 937, 963). Even then, every effort must be made to preserve water right priorities. (*Id.* at 967).

The SJRGA reminds the Board that there is no mechanism by which it can allocate any additional flows other than the mechanism of water right priority. Describing the needed flows as “natural,” “unimpaired,” or some other characterization will not be sufficient to justify the use of an apportionment mechanism based upon a formula that does not take into consideration the rights of the affected users.

2. **The Board Must Compile a Complete List of All Water Right Holders in the San Joaquin River Basin and Rank them By Priority to Give an Accurate Look at the Rights That Will Be Impacted by Any New San Joaquin River Flow Objective.**

As part of D-1641, the Board prepared a table of appropriations, ranked by priority, which could be used to identify from whom water would be made available under various flow conditions. (Final EIR for Implementation of the 1995 WQCP, Technical App. Vol. 2 (Nov. 1999), p. A3-14 – A3-16). The SJRGA's primary problem with the table was that it was incomplete as it did not include every water right holder located upstream of Vernalis.<sup>9</sup> Nonetheless, the SJRGA urges the Board to prepare a similar list as soon as possible and use it to "illustrate" the water supply impacts of the range of proposed San Joaquin River flow objectives. Such "illustration" would be far more accurate than the "percent of diversions" analysis provided in the DTR.

Although the 1999 table was not complete, looking at it shows that the most junior right in the San Joaquin River Basin is the USBR's 1988 application for New Melones (A014858B July 18, 1988), and four (4) of the 12 most junior rights are held by the USBR (two for New Melones (A014858B and A019304), one for Hidden Lake (A018733) and one for Eastman Lake (A018714)). While no definitive impact can be assigned to any of these rights until the new objective is identified, it is nonetheless reasonable to conclude that the USBR, based on these junior rights, will be required to provide the lion's share of any identified deficit. Since the Board will not be able to avoid compliance with its objectives once it gets to the implementation phase, it must begin to make this type of analysis now to insure that its objectives can and will be met.<sup>10</sup>

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<sup>9</sup> The SJRGA was also concerned that the Board would not adequately police the diversions of those that were physically downstream of any user that bypassed water to meet the flow objectives. It made no sense to deprive a senior water right holder upstream of Vernalis of its water to meet a beneficial use in the Delta, only to have such bypassed water be diverted by a junior appropriator and never achieve its intended benefit.

<sup>10</sup> In compiling such a list, the Board must include all water right holders in the San Joaquin River Basin. First, the appropriate baseline for the SED requires inclusion of all users, including those upstream of the

H. The DTR Presents No New Evidence or Information Sufficient to Justify Amending the San Joaquin River Flow Objectives.

The Board has recognized that the existing San Joaquin River flow objectives were based on poor science. (Revised D-1641, p. 22 [“pulse flow objectives ...based on limited data.”]; *see also* p. 21 [“Existing studies have not provided satisfactory results on the relative effects of flows and exports on smolt passage and survival. Additional studies are needed to clarify these effects.”]). The San Joaquin River Agreement was developed and adopted, in large part, to conduct an experiment (“VAMP”) to gather scientific data concerning the relationship of flow, the HORB, and exports to salmon smolt passage and survival through the Delta. (*Id.*, p. 21-22).

Although DFG recommended amendments to the San Joaquin River flow objectives in 2006, the Board refused “due to a lack of scientific information on which to base any changes.” (2006 WQCP, p. 6). The Board, however, did make two recommendations. First, it recommended that DFG complete its San Joaquin River salmon escapement model after its peer review. Second, it recommended that the VAMP study design be peer reviewed. (2006 WQCP, p. 7). The Board requested that both recommended tasks be done and presented to the Board at future workshops.

The workshop on the model was held September 17, 2008. At that workshop, we learned the following from DFG:

- The 2005 version of the model, Version 1.0, needed to be substantially revised in light of comments received in peer review;

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Merced River. Second, these users need to be included in any defensible plan of implementation. (*El Dorado Irr. Dist.*, *supra*, 142 Cal.App.4<sup>th</sup> at 963).



- The 2008 version of the model, Version 1.5, was an intermediate refinement of Version 1.0, but one that would be supplanted by Version 2.0 which was under construction and expected to be released in 2009
- Version 1.5 was not peer reviewed; Version 2.0 would be peer reviewed.
- The model had not been presented to the Bay-Delta modeling forum.
- DFG's consultant, a PhD from Berkley, stated: "The model wasn't very good."

Since then, DFG has not finished Version 2.0 of the model, has not had Version 2.0 of the model peer reviewed, and has not presented Version 2.0 of the model to the Bay-Delta modeling forum for review. Rather, on May 14, 2009, DFG submitted to the Board Version 1.6<sup>11</sup>. Version 1.6 has likewise not been peer reviewed. As discussed in greater detail in the SJRGA's submission on biology, and particularly the attachment prepared by Lorden and Bartroff, the statistical basis of the model is not sound and its results should not be used to generate amended San Joaquin River flow objectives.

Further, as explained in the SJRGA submission on biology, embedded in all versions of the DFG model, and forming the basis for many of the studies relied on and cited in the DTR, is essentially the same linear regression approach that has been consistently re-packaged, but never really updated or validated. This is critical as a cursory review of the 12 pages of "references" attached to the DTR gives the appearance of thoroughness and consensus. However, understanding that many of these references are merely re-hashed versions of an analysis originally done with data from 1989 reveals

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<sup>11</sup> DFG noted in a cover letter that work on Version 2.0 was continuing, but gave no further detail.

that those who are recommending changes to the San Joaquin River flow objectives have no new data or information justifying their recommendations.

There is absolutely no causal relationship between flow and escapement. In addition, no party putting forth positive relationships between flow and escapement have determined confidence intervals for their estimates. A confidence interval provides a measure of an estimate's reliability in the form of a range of numbers, constructed in such a way such that if the data were gathered again under the same conditions, the chance that the interval would contain the unknown quantity is at least a specified level, called the confidence level. Confidence levels of 90% and 95% are commonly used. Confidence intervals are standard operating procedure in scientific and legal matters, and it is rare for an estimate of an unknown quantity to not be accompanied by its corresponding confidence interval since otherwise nothing is known about the estimate's reliability. Therefore, if flows were set to levels specified by the current DFG model, or the simple regression model of escapement on flow, there is no analysis to let the Board know how likely it will be that the established flows will obtain the predicted results.

The inability of DFG, FWS or NMFS to provide the confidence interval associated with the simple regression model of escapement on flow is both troubling and revealing. If the Board were told that estimates suggest a flow of X cfs (e.g., 5000) would lead to an escapement of Y +/- some amount, the Board would be better able to determine the suitability of different flows for meeting their escapement targets.

Whereas DFG did not comply with the Board's September 17, 2008 recommendations, the SJRGA did. The VAMP study design was peer-reviewed in March, 2010, and a report issued on May 13, 2010. The peer review panel concluded that

*“when the Head of Old River Barrier (HORB) was in place, ... [a] strong positive relation between estimated survival rates and Vernalis flow was evident.”* (VAMP Peer Review Report, p. 4)(emphasis added). However, for those years when the HORB was not in place, the peer review panel found that *“there is no statistically significant relation”* between smolt survival and Vernalis flows. (*Id.*, p. 5). These findings<sup>12</sup> are especially relevant in any evaluation of the San Joaquin River flow objectives, as installation of the HORB is no longer permitted due to the provisions of the Delta Smelt Biological Opinion. Indeed, any study, report or model that indicates that increasing San Joaquin River flows without the simultaneous installation of the HORB will benefit salmon smolt migration must be looked at with a jaundiced eye and thoroughly scrutinized.

A close look at the data contained in the DTR shows that there is no “new” science or data justifying an amendment to the San Joaquin River flow objectives. Thus, it appears that the Board is making the same mistake that it did in 1995; the Board is rushing to do “something” or “anything,” because, in its view, action is equivalent to progress. While this view may be appropriate in terms of public relations and politics, it has no place in the basin planning process. The data set has been manipulated by various parties over the years for supposedly “new” information, yet the core data has not changed. There was no data supporting a causal relationship between Vernalis flow and salmon smolt survival in 1995, or in 2006, or today.

#### IV. CONCLUSION

A more critical examination of all relevant data needs to occur in the basin planning stage to ensure that a proposed water quality objective is reasonable in light of

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<sup>12</sup> The VAMP peer review panel also found that predation appeared to be a major problem for salmon smolt migration through the Delta, and stated “It seems clear that meeting smolt survival objectives will be difficult at best without better understanding and some resolution of the predation problem. (*Id.*, p. 27).

“all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible.” The limits on Water Board authority to deviate from an approved objective<sup>13</sup> based on additional information derived from during later quasi-judicial water rights hearings, calls out for development, presentation, and consideration of detailed testimony and exhibits during the basin planning proceedings. Similarly, water quality control plan implementation provisions must be carefully worded to ensure that they are broad enough to enable the Board, during water rights hearings, to balance the impacts of using vital public water supplies for “protection” of fish against other available methods to achieve the water quality goal that will better serve the overall public interest.

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<sup>13</sup> Justice Robie indicated that such a change could only be accomplished by reinitiating the water quality control planning process. (State Water Resources Control Bd. Cases, supra, 136 Cal.App.4<sup>th</sup> at 733).