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10 STATE WATER RESOURCES CONTROL BOARD  
STATE OF CALIFORNIA

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12 Public Workshop Comments  
Issue #9 (VAMP)

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14 Review of the 1995 Water Quality Control Plan  
15 For the San Francisco Bay/Sacramento -- San Joaquin Delta Estuary

16  
17 Comments of the  
SAN JOAQUIN RIVER GROUP AUTHORITY

18 March 11, 2005  
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1 I. INTRODUCTION

2 In its September 17, 2004 Revised Notice of Public Workshop, the State Water Resources  
3 Control Board ("SWRCB") indicated that it would receive information and conduct discussions  
4 regarding "specific plan amendments or revisions" to the Water Quality Control Plan for the San  
5 Francisco Bay/Sacramento-San Joaquin Delta Estuary adopted on May 22, 1995 ("1995 WQCP")  
6 (p. 1). While it recognized that the workshop forum was "informal," the SWRCB specifically  
7 identified 11 topics, including key issues for each, for which it would receive information as part of  
8 the workshop process. One of the topics identified was the flow objectives in the San Joaquin River  
9 during the 31 day pulse flow period between April 15 and May 15. Under this topic, the key issues  
10 the SWRCB wanted discussed were  
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13 "Should the SWRCB amend April 15 through May 15 San Joaquin  
14 River 31 day pulse flow objectives in the Water Quality Objectives  
15 for Fish and Wildlife Beneficial Uses?

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17 "Should the SWRCB include flexibility in the San Joaquin River  
18 pulse flow objectives or revise the objectives to specify criteria for  
19 staged implementation of the objectives or variances from the  
20 objectives? What amendments should be considered and what are the  
21 scientific and legal arguments in support of and against  
22 modification?" (p. 5).

23  
24 In accordance with the SWRCB's instructions, the San Joaquin River Group Authority  
25 ("SJRG") appeared at the workshop on January 25, 2005 and recommended that the objectives  
26 remain unchanged, but that additional language be added permitting implementation of the  
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1 objectives over time. Other parties, however, including the California Department of Fish and Game  
2 (“CDFG”), Central Delta Water Agency (“CDWA”) and South Delta Water Agency (“SDWA”),  
3 took the opportunity to argue that the San Joaquin River Agreement (“SJRA”), and not the 1995  
4 WQCP, should be changed, amended or abandoned. While the actual plan of implementation for the  
5 1995 WQCP that came out of the Bay-Delta Water Right hearings in 1998 is not an issue in  
6 Triennial Review (as opposed to the program of implementation that is contained in the 1995  
7 WQCP itself), the large quantity of misinformation regarding the SJRA that was presented at the  
8 workshop is troubling. As such, the SJRGA feels compelled to set the record straight regarding the  
9 history, development and purpose of the SJRA, as well as to respond to specific items raised by  
10 CDWA, SDWA and the CDFG.  
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## 12 **II. DEVELOPMENT OF THE SJRA**

### 13 **A. Introduction**

14 At the request of the Governor, SWRCB, and others, the SJRGA eschewed litigation  
15 regarding their concerns with the 1995 WQCP and, with the help and support of recognized  
16 biologists of the United States Fish and Wildlife Service (“USFWS”), National Marine Fisheries  
17 Service (“NMFS”), and CDFG, as well as other interested parties and experts, promulgated the  
18 SJRA. The SJRA establishes a method by which the spring pulse flow and fall attraction flow  
19 requirements of the 1995 WQCP can be substantially complied with, while simultaneously  
20 establishing a scientific protocol and process for gathering data on the nature of the relationship  
21 between such flows and the survival of salmon.  
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23 The flow and non-flow measures committed to by the SJRGA in the SJRA were developed  
24 voluntarily, without recognition of either the jurisdiction of the SWRCB over the water rights of the  
25 SJRGA, or of the allegation that the exercise of such water rights contributed to the problems being  
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1 addressed by the 1995 WQCP. This voluntary commitment was submitted to the SWRCB pursuant  
2 to the SWRCB's specific request for consensus-based resolutions.

3         The terms and conditions of the SJRA were specifically scrutinized in not less than three  
4 phases of hearings before the SWRCB, at which the SWRCB received hours of expert and  
5 percipient witness testimony and thousands of pages of documentation, including a completed a  
6 Environmental Impact Report ("EIR"), regarding the effectiveness of the SJRA, its impact on the  
7 environment, and its impact on other water users. At each of these hearings, parties opposing all or  
8 some of the SJRA made a variety of legal and factual arguments, none of which resonated with the  
9 SWRCB. The SJRA was approved by the SWRCB.  
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11         **B.         The 1995 WQCP**

12         In 1994, in accordance with the authority provided it by Section 13170 of the Water Code,  
13 the SWRCB prepared a water quality control plan designed to establish control measures that, in  
14 conjunction with existing and expected plans, policies and programs under the jurisdiction of other  
15 agencies, would provide for the protection of the beneficial uses of the Bay-Delta. (AR/10/2367/10-  
16 16). For the San Joaquin River, a variety of objectives, designed to protect different beneficial uses,  
17 were proposed. For the protection of agricultural beneficial uses, a salinity standard, measured in  
18 terms of electrical conductivity at Vernalis, was established. For the protection of municipal and  
19 industrial beneficial uses, a chloride standard measured at the Antioch Water Works Intake was  
20 established. And, most importantly for purposes of this proceeding, for the protection of fish and  
21 wildlife beneficial uses, the SWRCB determined that a 31 day pulse flow in April and May of each  
22 year, and again in October of each year, would be required, with the size of the pulse, as measured  
23 at Vernalis, dependent upon the water-year type. (AR/10/2367/28-31).  
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1 The SWRCB deferred the identification of specific actions and measures designed to  
2 implement the requirements of the 1995 WQCP until a later date, although it recognized that much  
3 of the 1995 WQCP would be implemented *via* amendments to the specific water rights exercised in  
4 the Bay-Delta watersheds following a water right hearing to be conducted by the SWRCB after the  
5 adoption of the 1995 WQCP itself. (AR/10/2367/10, 13, 36). In the period between the adoption of  
6 the 1995 WQCP and the amendment of water rights to take place after the completion of a water  
7 right hearing, the SWRCB made both the United States Bureau of Reclamation (“USBR”) and the  
8 California Department of Water Resources (“DWR”) responsible for implementing the objectives.  
9 (AR/10/2367/36). The SWRCB specifically held open the possibility that it would re-allocate such  
10 responsibility once the water rights hearing was concluded. (*Id.*).

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13 **C. The SJTA Lawsuit**

14 The SWRCB’s preparation, consideration and adoption of the 1995 WQCP was watched  
15 with great interest by Oakdale Irrigation District (“OID”), South San Joaquin Irrigation District  
16 (“SSJID”), Modesto irrigation District (“MID”), Turlock Irrigation District (“TID”), and Merced  
17 Irrigation District (“Merced ID”). These public entities hold the largest and most senior  
18 appropriative water rights to the Stanislaus, Tuolumne and Merced Rivers, and operate a complex  
19 array of diversion, storage, conveyance and power producing facilities. (AR/4/1113/88-92). In light  
20 of the SWRCB’s clear intention to implement the water quality objectives contained in the 1995  
21 WQCP *via* amendment of existing water rights, OID, SSJID, MID, TID and Merced ID each  
22 realized that their particular water rights were at great risk of being altered or amended by the  
23 SWRCB. These agencies were particularly concerned for their water rights since (1) the 1995  
24 WQCP required additional flow at Vernalis, and (2) at that time, it appeared unlikely that such  
25 water could be obtained from any source other than themselves.  
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1 The San Joaquin Tributaries Association ("SJTA"), consisting of OID, SSJID, TID, MID  
2 and Merced ID, challenged the SWRCB's adoption of the 1995 WQCP. (San Joaquin Tributaries  
3 Association v. State Water Resources Control Board, Sacramento County Superior Court Case No.  
4 95CS01432). The SJTA alleged, *inter alia*, that the flow requirements adopted for the San Joaquin  
5 River, as measured at Vernalis, by the SWRCB to protect fish and wildlife beneficial uses, were not  
6 based upon sound science. (AR/4/1113/40). Specifically, the SJTA felt that there was not enough  
7 scientific evidence in the administrative record regarding the relationship of Chinook salmon  
8 survival and increased flow in the San Joaquin River to justify the adoption of the specific flow  
9 objectives for the San Joaquin River contained in the 1995 WQCP. (AR/4/1113/40). The SJTA  
10 therefore sought to prevent the SWRCB from enforcing or implementing the water quality standards  
11 contained in the 1995 WQCP. This was the only lawsuit filed which challenged any aspect of the  
12 1995 WQCP itself.<sup>1</sup>

15 In the settlement discussions that immediately ensued, the SWRCB suggested that the SJTA  
16 should attempt to resolve its concerns about the adequacy of the scientific underpinnings of the  
17 Vernalis flow requirements contained in the 1995 WQCP through the development of an  
18 implementation strategy which would both substantially comply with the flow requirements and  
19 provide for the acquisition of data regarding the effect such flow was having on Chinook salmon  
20 survival instead of through litigation. (AR/4/1113/40). While any such implementation strategy  
21 would have to be submitted to the SWRCB at the water right hearing it intended to schedule, the  
22 SJTA was informed by the SWRCB that it would consider such a submission. (AR/1/0080/2).

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26 <sup>1</sup> Several parties intervened in the suit, including the CCSF, Santa Clara Valley Water District, Kern County Water  
27 Agency, Metropolitan Water District of Southern California, State Water Contractors, and DWR.

1 In light of these discussions, the SJTA's members made the decision to settle their case and  
2 to try to work through their concerns about the Vernalis flow requirements in a cooperative, open  
3 fashion that would permit the 1995 WQCP to be implemented. This decision was extremely risky,  
4 since there was no guarantee that the proposal put forward by the SJTA's members would be  
5 accepted or adopted by the SWRCB. However, the SJTA's members were not interested in stopping  
6 the implementation of the Vernalis flow requirements at all costs, but only in making certain that  
7 such flow requirements were based upon sound science. Being given the opportunity to devise an  
8 implementation strategy that would both provide additional flows at Vernalis while collecting data  
9 to ensure that such flows were having the desired affect was considered by the SJTA's members to  
10 be a fair and proper resolution.  
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12 **D. The SJRA**

13 1. Development of the Vernalis Adaptive Management Plan

14 During its settlement negotiations with the SWRCB over the SJTA lawsuit, as well as in  
15 response to the SWRCB's invitation to water right holders to develop and present agreed-upon  
16 implementation plans at the water right hearings, the SJTA decided to seek a broader coalition, one  
17 which was not based solely upon senior water right holders in the San Joaquin River Basin, but one  
18 which also included other stakeholders and parties interested in issues associated with the San  
19 Joaquin River. (AR/15/0028/1-2; *see also* AR/2/3302/66). As a result, the SJTA joined with the  
20 Friant Water Users Authority ("FWUA") and the San Joaquin River Exchange Contractors  
21 ("Exchange Contractors") to form the SJRGA, which then entered into an 18 month process of  
22 broad discussions intended to develop a comprehensive package of scientifically based flow and  
23 non-flow actions designed to benefit outmigrating salmon smolts and other aquatic species.  
24 (AR/15/0028/1-2; *see also* AR/2/3302/66-67). Such meetings and discussions brought together and  
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1 included other water right holders, such as CCSF and East Bay Municipal Utilities District  
2 (“EBMUD”), the state and federal export contractors, the USBR and DWR, various federal and  
3 state resources agencies, including the Environmental Protection Agency (“EPA”), USFWS, NMFS,  
4 CDFG, and private groups dedicated to the preservation of the environment, including the Natural  
5 Heritage Institute (“NHI”) and the Bay Institute. (AR/2/3302/66-68; AR/2/3302/137).  
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7 At the same time that these meetings were taking place, two scientists, Dr. Bruce Herbold of  
8 EPA and Dr. Charles Hanson, an expert retained by the State Water Contractors, were taking the  
9 lead role in developing an experiment to evaluate the role that flow in the lower San Joaquin River  
10 and exports had on the survival of outmigrating Chinook salmon smolts. (AR/2/3302/128-131).  
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12 When the work that these two men were performing became known to the SJRGA, they were  
13 invited to and became an integral part of the larger process being fostered by the SJRGA.

14 Development of the experiment was an iterative process. As various drafts of the  
15 experiment, which became known as the Vernalis Adaptive Management Plan (“VAMP”), were  
16 prepared, they were discussed, reviewed and revised by researchers and scientists from all sectors,  
17 including water users, universities, the state and federal resource agencies and the environmental  
18 community. (AR/2/3302/130; AR/2/3302/137).  
19

20 In developing the experiment, Drs. Herbold and Hansen were guided by three principles.  
21 First, the experiment had to be designed and conducted in such a way as to protect salmon at least as  
22 well as would strict compliance with the 1995 WQCP. (AR/2/3302/131). Second, the experiment  
23 had to provide scientific results that actually reflected upon the relationship between flow, exports,  
24 and salmon smolt survival during the spring emigration period. (Id.). Third, the scientific results had  
25 to be verifiable, reliable and usable so that future decisions based upon them would have the  
26 confidence of all of the affected parties. (Id.). Utilizing these three principles, the VAMP  
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1 experiment was designed in two phases. The first phase was analytical and focused on identifying  
2 what the experiment should be in terms of flow and exports. (AR/2/3302/129). The second phase  
3 was logistical, and focused on the method by which the impact that the experiment had on salmon  
4 smolts could be determined. (Id).

5         The analytical framework of the experiment was identified by an examination of the various  
6 physical and regulatory constraints on the system. These included the existing limitation that the  
7 ratio of flow to exports be 2:1, a ceiling on flows of 7,500 cubic feet per second (“cfs”) at Vernalis  
8 due to the installation of a barrier at the head of Old River, and minimum export requirements.  
9 (AR/2/3302/132-134; AR/4/1023/29-32). Once this framework was in place, additional flow to  
10 export ratios were added in an effort to avoid the problem, seen in the historical data, that the flow  
11 and export numbers would vary together. (AR/2/3302/132, 134-135). Similarly, additional flow  
12 rates were added to round out the possible data and assist in determining the interaction between  
13 flow rate, exports and salmon smolt survival. (AR/2/3302/134). The result was a matrix of flows  
14 and export rates that enabled an evaluation of four levels of flow and three levels of export.  
15 (AR/4/1023/31-32).

16         Having created the analytical framework, an actual logistical plan for implementing the  
17 experiment and measuring its results had to be prepared. Relying upon the seasonal pattern of smolt  
18 emigration and factors influencing such migration, including water temperature, the scientists  
19 identified April 15 through May 15 as the time during which the experiment should be conducted.  
20 (AR/2/3302/138). During this time period, the flows and exports would be managed in accordance  
21 with the matrix discussed above. By managing the flow and exports, the reliability of the data would  
22 be increased, since variation in both was identified as a primary weakness of prior studies regarding  
23 the impact that flows and exports had on smolt survival. (Id). Further, it would enable the

1 researchers to differentiate between the impact that flows and export rates had individually, which  
2 prior studies could not due to the variability of each. (AR/4/1023/29).

3 In addition to the consistent management of flows and exports in accordance with the  
4 protocols of the experiment, the experiment assumes and relies upon the consistent installation and  
5 operation of a barrier at the head of Old River. (AR/4/1023/33-35). As noted above, the analytical  
6 limits of the experiment were developed based upon the amount of flow that the barrier could  
7 withstand. (AR/2/3302/132-134). The primary benefit of the barrier is that it directs outmigrating  
8 smolts away from the Old River channel (and thereby away from the State and Federal pumps) and  
9 keeps them in the main stem of the San Joaquin River, greatly increasing their chance of survival.  
10 (AR/4/1025/10-13, 25-34; AR/2/3302/111-113, 172; AR/2/3303/97-101). However, while the  
11 installation and operation of the barrier is an integral aspect of the experiment, the researchers  
12 recognized that the barrier might not be installed under all conditions. (AR/2/3302/139-140). As  
13 such, they developed a contingency plan for those years in which the barrier is not installed and  
14 operated which will enable the experiment to take place and to still provide valuable data utilizing  
15 the general protocols of the overall experiment. (Id.; AR/4/1023/33-35).

16 Having identified the time frame for the experiment, as well as the flow and export rates that  
17 would be used, all that remained was the process by which the level of smolt survival could be  
18 evaluated. After reviewing past efforts and identifying their strengths and weaknesses, the  
19 researchers decided to release salmon smolts containing coded wire tags from four locations in the  
20 southern and eastern Delta during the April-May pulse flow period and to sample/recapture such  
21 smolts at two locations in the western Delta. (AR/2/3302-135-136; AR/2/3302/144-147;  
22 AR/4/1023/37, 41). Results of the recapture, identifying the number caught from each release  
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1 location, as well as general operating and environmental conditions occurring during the recapture,  
2 will be documented. (AR/4/1023/45).

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4 2. Implementation of VAMP By The San Joaquin River Agreement

5 Even though scientists and researchers designed the VAMP experiment so that it could be  
6 conducted, both analytically and logistically, the experiment remained a theoretical exercise since  
7 almost all of its elements were subject to the control of different entities. To manage the flow at  
8 Vernalis in accordance with the experiments' matrix, one needed the participation of several water  
9 right holders located upstream of Vernalis. To manage the exports, one needed the participation of  
10 the USBR and DWR. To install and operate the barrier at the head of Old River required the consent  
11 of the DWR. The transport, release and recapture the coded-wire tagged salmon smolts required the  
12 participation and consent of the State Water Project, CDFG, and USFWS.  
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15 It was at this point that the members of the SJRGA stepped in with an offer. They, as the  
16 holders of the largest and most senior water rights to the San Joaquin, Stanislaus, Tuolumne and  
17 Merced Rivers, would make the water available necessary to achieve the April-May pulse flow  
18 called for in the experiment as their contribution to the 1995 WQCP. In exchange, the USBR and  
19 DWR would agree to meet all other flow related requirements of the San Joaquin Basin and to limit  
20 exports as called for in the experiment. (AR/4/1023/17-18). Additionally, the DWR would install  
21 the barrier at the head of Old River, and CDFG and USFWS would assist in the release and  
22 recapture of the test smolts. The parties agreed in concept to this idea, and began to draft an  
23 agreement that could then be presented to the SWRCB for review and consideration at the  
24 SWRCB's water right hearings. This became the SJRA.  
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1           The SJRA is a 12-year performance agreement that contains a package of flow and non-flow  
2 actions that will be undertaken by the parties to implement the VAMP experiment. First, it  
3 establishes a schedule by which the SJRGA's members will provide up to 110,000 acre-feet of  
4 water each year, in excess of the existing flow, to meet the April-May pulse flow. (AR/4/1023/10-  
5 12). Second, the SJRA requires the USBR and DWR to reduce exports during the pulse flow period,  
6 with the level of reduction based upon the flow at Vernalis. (AR/4/1023/13). Third, the SJRA  
7 provides that DWR will install the barrier at the head of Old River each year. (AR/4/1023/14).

9           In addition to providing the framework by which the VAMP experiment is to be conducted,  
10 the SJRA also calls for additional water to be made available for environmental benefits in other  
11 parts of the year. Thus, Merced ID shall sell the USBR an additional 12,500 acre-feet of water for  
12 release in October of each year to assist in the attraction of migrating salmon. (AR/4/1023/16).  
13 Further, OID shall sell the USBR an additional 15,000 acre-feet each year and make that water  
14 available for the USBR's use at its New Melones facility for any authorized use at any time of the  
15 year. (Id.). And, the SJRA contains unprecedented conditions insuring that the USBR has access to,  
16 and a preferred position in, a water market created by the SJRGA's members so that the USBR can  
17 more easily acquire water it deems necessary for environmental and other purposes. (Id.).

19           The SJRA contains far more than just the basics of the actions to be taken; it creates a  
20 comprehensive process by which the experiment shall be conducted each year. It establishes a  
21 technical committee, comprised of one technical specialist designated by each party, whose purpose  
22 is to meet each year to develop the flow and export rates, to determine the best management of flow  
23 released during the pulse flow period, and to coordinate the flow releases, export reductions, and  
24 release and recapture of salmon smolts. (AR/4/1023/19-20, 51-60). The technical committee is also  
25 responsible for conducting the sampling and monitoring effort, including the protocols for the  
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1 transport, tagging, release, and recapture of salmon smolts, and compilation and evaluation of the  
2 data. (AR/4/1023/17, 36-45). To insure confidence in the results of the experiment, all data  
3 collected shall be available to the public. (AR/4/1023/17).

4         The SJRA also includes detailed requirements for dealing with any disputes that may arise  
5 among the parties. Termination may only be sought by the SJRGA's members if their water supply  
6 is materially impaired or for non-payment by the USBR. (AR/4/1023/21-22). Even in these  
7 instances, termination is not the preferred remedy, and the SJRA requires that any party seeking to  
8 terminate the agreement for any reason shall provide notice to the other parties of their intent to  
9 terminate and the reasons therefore, shall call for mediation of the dispute, and shall renegotiate the  
10 SJRA if at all possible. (AR/4/1023/21-23). Moreover, in the event that termination does occur,  
11 either by expiration of the term or by action of the parties, the SWRCB shall be notified and conduct  
12 a hearing on the parties' responsibilities under the 1995 WQCP. (Id.).

13         The SJRA was agreed to by the USBR, DWR, SJRGA, TID, MID, Merced ID, SSJID, OID,  
14 Exchange Contractors, FWUA, CCSF, USFWS, and CDFG. (AR/1/0770/30). Although the parties  
15 agreed to the terms and conditions of the SJRA, performance of the agreement was contingent upon  
16 approval of certain conditions by the SWRCB. Specifically, the SWRCB had to find that the USBR  
17 and DWR were responsible for meeting all of the flow requirements for the San Joaquin Basin  
18 established in the 1995 WQCP, and that the sole responsibility of the SJRGA's members was to  
19 assist the USBR and DWR in meeting their requirements by performing in accordance with the flow  
20 provisions of the SJRA. (AR/4/1023/15). The SWRCB also had to agree to amend the water rights  
21 of the SJRGA's members in accordance with Water Code sections 1707 and 1735 to enable them to  
22 release water for the environmental purpose of meeting the pulse flow requirements at Vernalis.  
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1 (Id.). Thus, prior to becoming an enforceable contract, the parties to the SJRGA had to submit the  
2 SJRA to the SWRCB for review and consideration at its water rights hearing.  
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4 **E. Consideration of the SJRA By the SWRCB**

5 The factual and legal aspects of the SJRA were the subjects of three separate phases of the  
6 SWRCB's water right hearing. At the first, Phase 2, the SJRA was officially submitted to the  
7 SWRCB by the SJRGA, the United States Department of Interior, DWR and CDFG for its initial  
8 consideration. The proponents of the SJRA were required to provide evidence in support of the  
9 SJRA. Opposing parties were not required to submit evidence, although they were permitted to (and  
10 did) conduct cross-examination of the witnesses and evidence submitted. (AR/1/0770/25).  
11

12 Having determined that the SJRA merited further consideration, the SWRCB added Phase  
13 2A, which permitted opposing parties the opportunity to submit their own evidence as to why the  
14 SJRA should not be accepted by the SWRCB. Thereafter, Phase 2B was added, which focused on  
15 the request by the SJRGA's members to amend their water rights to effectuate the SJRA.  
16

17 At the conclusion of the water rights hearing, the SWRCB ordered changes to the permits of  
18 the USBR and DWR requiring them to meet the flow requirements for the San Joaquin River Basin  
19 as set forth in the 1995 WQCP. (AR/1/0770/160, 175). The SWRCB also ordered changes to the  
20 water rights of the SJRGA's members, enabling them to comply with the terms and conditions of  
21 the SJRA, and finding that such compliance will constitute satisfaction of any responsibility that  
22 such parties may have in meeting the flow requirements of the 1995 WQCP. (AR/1/0770/180). As  
23 to the SJRGA's members, the approved-changes were temporary, and expire on December 31,  
24 2011, the stated end of the term of the SJRA, or the termination of the SJRA, whichever occurs first.  
25 (Id.). At that time, the SWRCB will reconvene to consider new or different flow objectives for the  
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1 San Joaquin Basin and/or alternative methods and responsibilities for meeting the San Joaquin  
2 Basin objectives. (AR/1/0770/38). By then, performance of the SJRA will have generated an  
3 enormous amount of data for use by the SWRCB in establishing the new or different flow objectives  
4 and/or the alternative methods and responsibilities for meeting those objectives.

5 The SWRCB did not, however, order that the SJRA be complied with. It only found that if it  
6 were complied with, such compliance would constitute satisfaction of the San Joaquin Basin  
7 objectives contained in the 1995 WQCP. The changes to the water rights of the USBR expressly  
8 provide that the USBR shall ensure that the San Joaquin River flow portion of the 1995 WQCP is  
9 met  
10

11 “with the exception that during the April-May pulse flow period while  
12 the SJRA is in effect, experimental target flows set forth in [the  
13 SJRA] *may be provided* in lieu of meeting this objective.”  
14 (AR/1/0770/175)(emphasis added).

15 If the terms and conditions of the SJRA are not complied with, the SWRCB ordered that the USBR  
16 and DWR would be required to meet the San Joaquin Basin flow objectives of the 1995 WQCP  
17 while the SWRCB conducted further proceedings to determine the responsibility for and the method  
18 of meeting those objectives. (AR/1/0770/176).

19 **III. THE SWRCB HAS ALREADY CONSIDERED AND REJECTED ASSERTIONS**  
20 **THAT THE SJRA WILL REDUCE SUMMER FLOWS AND DEGRADE WATER**  
21 **QUALITY**  
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23 Predictably, representatives for CDWA and SDWA commented at the workshop that the  
24 SJRA will reduce summer flows and degrade water quality. These tired arguments have been  
25 repeatedly made by CDWA and SDWA, and at every turn have been rejected by both the SWRCB  
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1 and courts of law. However, seeing as how they have been raised yet again, the SJRGA is  
2 compelled to respond.

3 To demonstrate that the proposed changes would not substantially alter either water quality  
4 or quantity at Vernalis, the SJRGA used the 71 years of known hydrologic data for the San Joaquin  
5 River Basin to model the water quality and flow at Vernalis assuming (1) objectives of the 1995  
6 WQCP, (2) increased minimum 1995 Federal Energy Regulatory Commission ("FERC") flow  
7 requirements on the Tuolumne River, and (3) operation of the New Melones Project by USBR in  
8 accordance with the Interim Operations Plan ("IOP"). (SJRGA Ex. 103, p.5). This scenario was  
9 referred to as the "Pre-SJRA setting." (Id.). The SJRGA also modeled the same water quality and  
10 flow objectives at Vernalis assuming that the SJRA were implemented. (Id.). This scenario was  
11 referred to as the "Post-SJRA setting."  
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14 By comparing the results of the two modeled scenarios, the SJRGA found that average  
15 monthly flow conditions in all hydrologic year types were substantially similar under both  
16 scenarios. The primary difference was that additional flows occurred in May and October under the  
17 Post-SJRA setting than occurred in the Pre-SJRA setting. (SJRGA Ex. 103, p. 9). There were some  
18 instances, primarily in the winter months of wet and above normal years, where the flows in the Pre-  
19 SJRA setting at Vernalis exceeded those of the Post-SJRA setting. (Id.) However, given the timing,  
20 in terms of both month and year type, in which these reductions occurred, as well as the fact that  
21 water quality violations were not increased thereby as is discussed further below, the reductions  
22 resulted in no significant impact to any legal user of water.  
23

24 The modeling done by the SJRGA also demonstrated that water quality at Vernalis is  
25 improved in the Post-SJRA setting in terms of the total number of months that the water quality  
26



1 standard is exceeded. (Id.). However, water quality was vastly improved in the month of October in  
2 the Post-SJRA setting, to the point where no water quality violations occur at all. (Id.)

3 In an effort to further illustrate specific differences between the two scenarios, as well as to  
4 show how approval of the petitions would affect the applicable river systems, the SJRGA submitted  
5 additional evidence describing in detail the modeled operation of the Tuolumne, Merced and  
6 Stanislaus rivers, as well as the San Joaquin River, for both the Pre-SJRA and Post-SJRA settings  
7 using four separate and hydrologically distinct time periods. While each of the four sequences  
8 utilized vary in hydrology, three of the four are similar in that they depict a period when the affected  
9 reservoirs are full, are then drawn down, and subsequently re-filled. This type of period was  
10 specifically chosen to illustrate the impact that approval of the petitions and implementation of the  
11 SJRA would have on reservoir operations and carryover storage.  
12

13  
14 The first sequence examined was 1965-1967, which was characterized as a hydrologically  
15 wet year, followed by a below normal year, followed by a wet year. (SJRGA Ex. 103, p. 12-14; Fig.  
16 2a-2d). As to flow depicted at Vernalis, the modeling showed that flows under the Pre-SJRA setting  
17 and Post-SJRA setting were substantially similar, with flows being larger in May under the Post-  
18 SJRA setting, and flows being somewhat less during those winter months when re-fill of the various  
19 reservoirs took place under the Post-SJRA setting. (SJRGA Ex. 103, Fig. 2d). As to water quality  
20 depicted at Vernalis, the modeling showed that  
21

22 “Water quality objectives at Vernalis were met during all months of  
23 this sequence. At times when reservoir refill operations occurred  
24 water quality at Vernalis slightly decreased, but never caused an  
25 exceedance of the water quality objective. During times when  
26 additional water was provided to Vernalis during the VAMP test flow  
27

1 period and during October, water quality improved at Vernalis.”  
2 (SJRGGA Ex. 103, p. 14).  
3

4 At Vernalis, therefore, the SJRGGA’s analysis shows that the approval of the petitioned changes and  
5 the subsequent implementation of the SJRA would not have resulted in any water quality problems,  
6 and the amounts of water flowing at Vernalis would have remained the same or higher, except in  
7 those few winter months when reservoirs are re-filling.  
8

9 This analysis also showed that the use of reservoir storage on the Merced and Tuolumne  
10 Rivers did not result harm to any legal user of water. When reservoir re-fill occurred – in the winter  
11 of 1964/1965, the fall of 1965 and the spring of 1967 –such re-fill merely captured flows that would  
12 have otherwise exceeded minimum flow requirements. (SJRGGA Ex. 103, p. 12-14; Fig. 2a-2d).  
13 Thus, through the use of reservoir storage and re-fill, deliveries to customers are able to remain  
14 within historical levels and water can be made available pursuant to the SJRA.  
15

16 Similar results were found regarding the other sequences examined, 1975-1978, 1983-1986  
17 and 1986-1992. (See SJRGGA Ex. 103, p. 14-20; Fig. 2a-5d). In each case, as depicted at Vernalis,  
18 water flows remained substantially similar, higher during the pulse flow and October periods,  
19 somewhat less during times of reservoir re-fill and re-operation. Water quality at Vernalis typically  
20 remained the same or improved, with the times of exceedance not exacerbated by implementation of  
21 the SJRA. (Id.).  
22

23 Moreover, while each sequence was somewhat different, none of the sequences unduly  
24 impacted any of the rivers from which water would be made available for the SJRA. To the  
25 contrary, approval of the petitioned changes and implementation of the SJRA would not deprive  
26 flow in Stanislaus, Tuolumne and Merced river systems except during periods of high flow, when  
27

1 the impact of such diversions would be *de minimis*, at most. (AR/2/3366b/65-66). Therefore, those  
2 relying upon each of the river systems for their water will not be harmed or unreasonably affected if  
3 the petitioned changes are approved.

4 The results of the SJRGA's analysis were supported by the analysis performed by SWRCB  
5 staff in its evaluation of the SJRA in its Draft EIR. Mr. Howard, a member of the SWRCB staff  
6 familiar with the Draft EIR, testified that the modeling done by the SWRCB regarding the  
7 implementation of the SJRA demonstrated that New Exchequer Reservoir on the Merced River, and  
8 New Don Pedro Reservoir on the Tuolumne River, could make all releases necessary to meet  
9 downstream demand and still meet the requirements of the SJRA. (AR/2/3367/38, 42-43, 67).

10 As compared to current conditions, the evidence submitted by the SJRGA showed that  
11 approval of the change petitions and implementation of the SJRA would result in substantially  
12 similar and in some cases improved, average flow at Vernalis in all year types. (See SJRGA Ex.  
13 103, Fig. 1a-1e). Similarly, approval of the change petitions will result in an improvement in overall  
14 water quality at Vernalis as compared with current conditions. (See SJRGA Ex. 103, p. 9). The  
15 evidence also showed that approval of the change petitions would not enable the SJRGA's members  
16 to increase the amount of water they are entitled to use, although some of them would alter their  
17 operations to exercise reservoir storage and recapture any deficit in storage in wet periods in  
18 accordance with their existing water rights. (SJRGA Ex. 103, p. 21). This greater reliance on  
19 reservoir storage, combined with improved water operation efficiencies and development of  
20 conjunctive use programs, will enable the SJRGA's members to continue to supply their customers  
21 with water while still making the necessary water available to implement the SJRA. (SJRGA Ex.  
22 103-113).

1 The SWRCB concurred with the evidence and testimony submitted by the SJRGA, finding  
2 that performance of the SJRA will result in “no injury to southern Delta beneficial uses of water.”  
3 (D-1641, p. 30). Accordingly, the SWRCB approved the SJRA despite CDWA and SDWA’s  
4 claims.

#### 6 IV. THE SJRA CANNOT BE AMENDED BY THE SWRCB

7  
8 The CDFG presented written and oral testimony regarding the SJRA, recommending that  
9 key aspects of the SJRA be amended by the SWRCB. Specifically, the CDFG advocates (1) a peer  
10 review to determine if changes to the study design of the SJRA are needed and, if so, to enable  
11 them, (2) amending the range of target flows, (3) increasing the number of test fish, and (4)  
12 enlarging the 31 day window of the pulse flows. (CDFG Comments, January 24, 2005, p. 2-5).  
13 While the SWRCB could, as part of Triennial Review, amend the 31 day pulse flow window called  
14 for in the 1995 WQCP, all of the other suggested changes are beyond the power and jurisdiction of  
15 the SWRCB.

16  
17 The SWRCB has already recognized that the SJRA is a private “agreement among its  
18 parties,” and has properly declined prior efforts by parties opposing the SJRA to seek to amend the  
19 terms and conditions of the SJRA. (D-1641, p. 22). During Phases 2 and 2A, several parties,  
20 including the Bay Institute, argued that the SWRCB should not approve the condition, contained in  
21 the SJRA itself, which enables the United States to pay for water out of ecosystem restoration funds  
22 established by the CVPIA and other sources. (AR/15/ 3168, p. 2). According to the Bay Institute,  
23 this funding provision “violate[s] the authorization for such funds.” (*Id.*). The Bay Institute did not,  
24 however, argue that the SWRCB should refuse to adopt the SJRA based upon its objections to the  
25 funding mechanism; to the contrary, the Bay Institute expressly supported the implementation of the  
26  
27

1 SJRA. Rather, what the Bay Institute asked was that the SWRCB adopt a modified version of the  
2 SJRA which altered the funding arrangements agreed to by the parties to the SJRA.

3 The SWRCB properly refused the Bay Institute's request. Rather than get involved in  
4 whether or not the funding mechanism was appropriate and enforceable, the SWRCB stated  
5

6 "the SWRCB is not the appropriate forum to enforce payments of  
7 money under the SJRA. **This is a matter between the parties**, and  
8 any enforcement of the payment provisions should be pursued in a  
9 court of law." (D-1641, p. 26)(emphasis added).

10 The SWRCB must do the same in this case. It simply does not have the power to alter, change or  
11 otherwise amend the terms and conditions of the SJRA, despite the request to do so by the CDFG.  
12 While the SWRCB has the power to change the 1995 WQCP in ways that make the SJRA, in its  
13 current form, inappropriate as an implementation measure, even that type of change would not  
14 mandate or require that the parties to the SJRA amend it in the ways suggested by the CDFG.  
15 Indeed, in that instance, the parties would retain the discretion to amend the SJRA, or not, as they  
16 saw fit.  
17  
18  
19

20 **V. ANY ACTION THAT CAUSES THE TERMINATION OF THE SJRA WILL**  
21 **RESULT IN THE USBR AND DWR BEING RESPONSIBLE FOR MEETING THE SAN**  
22 **JOAQUIN RIVER BASIN FLOW DEPENDENT OBJECTIVES FOR UP TO TWO YEARS.**  
23

24 It is worth remembering that in the event the SJRA is terminated, the USBR and DWR will  
25 be solely responsible for meeting the flow dependent objectives of the San Joaquin River basin for  
26 up to two years. (SJRA, Para. 10; D-1641, p. 26). This period is designed to enable the objectives to  
27


1 be met while the SWRCB conducts a new hearing to determine the responsibility of water right  
2 holders in the San Joaquin River basin for meeting the 1995 WQCP objectives. This is important  
3 since, if the SWRCB does attempt to alter, change or otherwise amend the terms and conditions of  
4 the SJRA, such effort would almost certainly constitute a material change justifying termination  
5 under Paragraph 13 of the SJRA.  
6

7 **VI. CONCLUSION**

8 The SJRGA respectfully requests that the SWRCB refuse to take the suggestions made by  
9 the CDFG, CDWA and SDWA to act beyond its powers generally, and beyond the scope of this  
10 proceeding specifically, to alter, amend or abandon the SJRA.  
11

12 DATED: March 11, 2005

O'LAUGHLIN & PARIS LLP

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15 By   
16 Tim O'Laughlin  
17 Attorneys for SJRGA  
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