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BEFORE THE
STATE WATER RESOURCES CONTROL BOARD

PERIODIC REVIEW OF THE 1995
WATER QUALITY CONTROL PLAN
FOR THE SAN FRANCISCO BAY/
SACRAMENTO-SAN JOAQUIN DELTA
ESTUARY

JOINT MEMORANDUM

I. INTRODUCTION

This Joint Memorandum is presented by the State Water Contractors ("SWC") and the San Luis & Delta-Mendota Water Authority ("SLDMWA"), sometimes referred to collectively herein as the "Export Water Users."

The Export Water Users participated in the State Water Resources Controls Board's ("State Board") prior workshops on the periodic review of the 1995 Water Quality Control Plan for the for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary ("1995 WQCP" or "Bay-Delta Plan"). At that time, the Export Water Users stated their belief that certain objectives were being applied in an overly rigid manner, thereby providing less than optimum

1 fisheries protection, sometimes wasting valuable stored water supplies, and/or preventing
2 reasonable beneficial use of water. For example, the SWC, in its closing statement filed
3 June 3, 2005, stated this conclusion as follows:

4 What the scientific community has learned about the Delta through
5 implementation of the current Delta standards and detailed
6 scientific study is that every time we set regulations to benefit a
7 specific species we believe to be an "indicator species," or the
8 canary in the mine, nature has later proven us wrong. Every time
9 we decide that a certain block of time or rate of flow is critical to a
10 species' success, we learn that there are more exceptions to the rule
11 than there is a rule.

12 Today our best scientists seem to agree that more monitoring is
13 needed for the Delta system and, based on the results of that
14 monitoring, we should react to each year's unique conditions, each
15 month's odd temperature and flow patterns, and each days random
16 decisions by fish as to when and where they want to move. We
17 need to refine our regulatory thinking. We need to devise ways to
18 create objectives, terms, and conditions that can be enforced, but
19 are not so immutable that they might accomplish only marginal
20 benefits at the expense of equally important public values such as
21 adequate water supplies for the 30 million or so people living in
22 California, and other fishery purposes that would actually benefit
23 protected species.

24 The Export Water Users' views have not changed. Therefore, they strongly support
25 modification of the 1995 Bay-Delta Plan to allow certain objectives to be flexed under
26 appropriate conditions.

27 In response to the State Board's July 18, 2005, Notice of Public Workshop, and the Key
28 Questions set forth therein, the Export Water Users are presenting and recommending adoption
29 of a decision tree that establishes the procedures and sideboards for considering flex actions that
30 *may* be proposed in the future. The presentation will also describe some gaming exercises that
31 were carried out, in conjunction with others, to demonstrate how this decision tree might
32 function. For these games, actual data from recent months were used.

33 The Export Water Users are concerned that some parties to this periodic review may
34 overlook the central premise of this presentation. The Export Water Users are not proposing
35 any particular flex. That is why the "may" is stressed in the paragraph above. That is not the

1 case. Thus, the Export Water Users presentation is designed to support their recommendation
2 that the State Board amend the 1995 Bay-Delta Plan to allow the three State and Federal fish
3 agencies and the SWP and CVP operators to consider and implement flexing, within strict
4 sideboards, at the proper time. If that authority is not granted now, before that proper time
5 occurs, it will be impossible to act in a timely manner when that certain future comes to pass.
6 To the Export Water Users, it seems extraordinary that anyone could seriously argue that having
7 the ability to consider implementing a flex would not enhance the ability to actively manage the
8 Bay-Delta system to improve both fishery protection and other beneficial uses of Bay-Delta
9 waters.

10 In addition to recommending a new flexing process, the Export Water Users are also
11 recommending that the State Board amend the 1995 Bay-Delta Plan to recognize the inherent
12 difficulties that arise when the SWP and CVP attempt to meet the X2 objective. While carrying
13 out the gaming exercises, the Export Water Users and other parties to the games discovered that
14 current efforts to meet the Outflow Objectives have resulted in many instances of over-
15 compliance. The reasons for this became clear with further investigation.

16 The SWP and CVP operators are required to predict several days in advance as to how
17 much outflow will be needed to meet the X2 objective. They make these predictions against the
18 backdrop of a highly complex estuary where changing winds, tides, temperatures, and other
19 natural factors can significantly influence the location of the X2 salinity line or the net Delta
20 outflow needed to maintain it in a precise location. In spite of these uncertainties, the Outflow
21 Objective is absolute, and the failure to meet it, even by one day, in any month is a violation of
22 the SWP and CVP water rights permits. As a result the SWP and CVP operators, in an
23 abundance of caution, plan their operations in a manner that causes over-compliance with the
24 objective, at the cost of many thousands of acre-feet of water.

25 During the gaming, this bias towards over-compliance was discovered when several
26 attempts to flex the X2 objective (i.e., to intentionally under-comply) resulted in the outflow
27 objective nonetheless being met or even over-complied. To remedy this flaw in the X2
28 objective, the Export Water Users are also recommending a modification of footnote 14 to the

1 1995 Bay-Delta Plan to allow under-compliance in one month to be made up the following
2 month.

3 **II. QUESTIONS PRESENTED**

4 In its Notice of Public Workshop, dated July 18, 2005, the State Water Board requests
5 that the parties in the workshop address the following specific questions:

6 a. What changes would increase the flexibility of either the value of the objective
7 or the methods set forth in footnote 14 to meet the objective? What specific values of the
8 Delta Outflow Objective and what conversions in footnote 14 should be modified
(flexed)? What are the numerical limits of these modifications (also referred to as
9 sideboards)?

10 b. What rationale is recommended for amending the Delta Outflow Objective? The
11 rationale should include a brief description of how the current operational
12 procedures/protocols that the State Water Project and the Central Valley Project use to
meet the Delta Outflow Objective result in either adverse impacts to upstream resources
or over-compliance with the objective.

13 c. Have any analyses been performed to evaluate the feasibility of the alternative
14 operational procedures/protocols recommended by the participant? Explain what
analyses have been performed and their results.

15 d. What specific process is available to determine when flexing is appropriate (also
16 referred to as a decision tree)?

17 e. What impacts would the proposed modifications cause to the beneficial uses
18 listed in the 1995 Plan? Modeling analyses representative of the entire range of possible
19 modifications to the objective under the flexing proposal should (at a minimum) address
impacts to:

20 1. The reliability of meeting the objectives for municipal and agricultural
beneficial uses.

21 2. The reliability of meeting the objectives for the protection of fish and
22 wildlife beneficial uses.

23 3. Meeting the current values of the Net Delta Outflow Index, calculated on
24 the daily, three-day, seven-day, and fourteen-day running averages and the
monthly average.

25 4. The position of X2 (2 mmhos isohalene) compared with current footnote
26 14.

27 5. The timing, quantity, and rate of exports or diversions from the southern
28 Delta at the Tracy, Banks, North Bay Aqueduct, and Contra Costa pumping
facilities.

1 6. The timing, quantity, and rate of diversion of water from the Delta for the
2 Environmental Water Account and B2 account.

3 f. What are the analyses of the California Department of Fish and Game, the
4 United States Fish and Wildlife Service, and the National Marine Fisheries Service
5 regarding the impacts of any specific flexing proposal on fish and wildlife beneficial
6 uses?

7 **III. EXPORT WATER USERS' RESPONSES TO QUESTIONS PRESENTED**

8 A. What changes would increase the flexibility of either the value of the
9 objective or the methods set forth in footnote 14 to meet the objective? What
10 specific values of the Delta Outflow Objective and what conversions in
11 footnote 14 should be modified (flexed)? What are the numerical limits of
12 these modifications (also referred to as sideboards)?

13 The Export Water Users are not proposing any changes in the values of the objectives.
14 Instead, they seek to have the State Board modify the methods set forth in footnote 14 to meet
15 the objective in order to (1) allow for relaxation of the Outflow Objective at times when the
16 quantity of water required to meet the Objective is large and the total protection afforded to all
17 beneficial uses can be improved through a flex ("Flex Actions") and (2) reduce the potential
18 occurrence of over-compliance.

19 Exhibits A, B, and C to this joint statement set forth the text of proposed amendments to
20 the 1995 Bay-Delta Plan that will implement these changes. Exhibit D to this joint statement is
21 a "Decision Tree" for the flex process.

22 B. What rationale is recommended for amending the Delta Outflow Objective?
23 The rationale should include a brief description of how the current
24 operational procedures/protocols that the State Water Project and the
25 Central Valley Project use to meet the Delta Outflow Objective result in
26 either adverse impacts to upstream resources or over-compliance with the
27 objective.

28 The rationale for amending the Delta Outflow Objective is simple. The manner in which
the existing outflow objective is worded, at times, requires expenditure of huge quantities of
previously stored water that, considering all the uses to be protected by the 1995 Bay-Delta
Plan, provides far below optimum protection to all the competing resource values. These are
the times when a flex action may be appropriate. At other times, even when a Flex Action may
not be appropriate, the way the objective is structured requires the SWP and CVP to operate in a

1 manner that virtually assures over-compliance. These are the times when the SWP and CVP
2 operators need the ability, if the Outflow Objective is not fully met within the current month, to
3 complete compliance within the first few days of the following month.

4 1. Reduced Water Cost With Insignificant Reduction In Level Of Protection

5 A few unlisted fish species and one shrimp exhibit a positive outflow/population
6 relationship as measured by the X2 objective. The relationships, however, are based on the
7 *average* location of X2 over a series of months, not on an instantaneous value. Further, the
8 slope of the population/outflow relationship curves are relatively flat. In contrast, when the
9 SWP and CVP have to meet the X2 objective at Port Chicago with stored water releases, huge
10 volumes of water are required, and which have and could continue to adversely impact salmon
11 upstream of the Delta. Permitting relatively minor changes in the average location of the X2
12 line can, therefore, save large volumes of stored water for later beneficial uses, and avoid the
13 upstream salmon impacts. These small X2 location changes result in equally small-calculated
14 changes in the fishery indices. Thus, the purpose of allowing flexing is to enhance management
15 of Delta water supplies to better optimize the protection of all beneficial uses.

16 2. Over-Compliance

17 Over-compliance is caused by the absolute requirement that the SWP and CVP operators
18 meet the X2 objective (number of days of compliance) each month, notwithstanding (a) the
19 uncertainties associated with hydraulic and hydrologic conditions (i.e., winds, barometric
20 pressure, depletions, tides), (b) the long lag times between release from upstream reservoirs and
21 arrival in the Delta), and (c) the fact that the correlations with fish abundance are not sensitive
22 to what happens in a single month. The uncompromising Outflow Objective, nevertheless,
23 forces the SWP and CVP operators to err on the side of caution to reduce the risk of monthly
24 non-compliance to a very small value. If the risk of a violation because of a failure to meet the
25 required number of days in a single month were removed and the objective was amended to
26 allow make up the next month, significant water savings would be realized, while the X2
27 objective was being fully met over the averaging period. Again, this can be done with no
28 significant impact on the level of fishery protection called for in the 1995 Bay-Delta Plan.

1 C. Have any analyses been performed to evaluate the feasibility of the
2 alternative operational procedures/protocols recommended by the
3 participant? Explain what analyses have been performed and their results.

4 The Export Water Users have participated with representatives from the State and
5 Federal fishery agencies, the SWP and CVP operators, the United States Environmental
6 Protection Agency, the Water Forum, and the Bay Institute in gaming exercises ("Stakeholder
7 Game"). The Export Water Users have also carried out additional, independent games ("Export
8 Water Users' Games").

9 Each of the games is described in detail in Exhibits E and F to this joint statement, and
10 those descriptions will not be repeated here. Tables A and B to this joint statement provide
11 summaries of the results of each game.

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1 **Table A**

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	Game 1.1 Feb 2003	Game 1.1 Ap 2004	Game 1.2 Feb 2003	Game 1.2 Apr 2004
Reasoning behind flex	Reduce American R. flow fluctuations	Reduce American R. flow fluctuations.	Reduce American R. flow fluctuations.	Reduce American R. flow fluctuations. Boost Folsom fall releases.
Change in Folsom storage pattern (TAF)	+27 February -27 February - March	+51 April -51 May - June	+27 February -27 February - March	+51 April -29 Aug. - Nov. -22 post Nov.
Upstream benefits	Eliminate flow spike on American R.	Eliminate flow spike on American R.	Eliminate flow spike on American R.	Eliminate flow spike on American R. Enhance fall releases on the American R.
Change in average February - June X2	-0.07 km (moved downstream)	-0.08 km (moved downstream)	-0.07 km (moved downstream)	+0.06 km (moved upstream)
Required/Historical/ Gamed Compliance with X2 standard for flex month (days)	25 required 26 historical 26 in game	18 required 23 historical 21 in game	25 required 26 historical 26 in game	18 required 23 historical 21 in game
Undercompliance volume	0	0	0	0
Predicted % change in biological indices for Longfin smelt, American Shad, Pacific Herring, Crangon	Longfin smelt=0.05% American shad=0.19% Pacific herring=0.03% Crangon=0.64%	Longfin smelt=0.75% American shad=-0.11% Pacific herring=-0.03% Crangon=-0.25%	Longfin smelt=0.05% American shad=0.19% Pacific herring=0.03% Crangon=0.64%	Longfin smelt=.05% American shad=.19% Pacific herring=.03% Crangon=.64%
Disposition of new water in upstream storage	Rereleased for outflow	Rereleased for outflow	Rereleased for flood control	Rereleased for instream flows and exports
Net Increased Exports	0	0	0	22

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1 **Table B**

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	Game 2.1 Apr 2004	Game 2.2 Apr 2004	Game 3.1 Apr 2004	Game 3.3 Apr 2004
Reasoning behind flex	Reduce American/Sacramento flow fluctuations	Reduce American/Sacramento flow fluctuations. Boost fall flows	Reduce American/Sacramento/ Feather flow fluctuations	Reduce American/Sacramento/ Feather flow fluctuations. Boost fall flows
Change in upstream storage pattern (TAF)	+172 April -172 May – June	+172 April -172 Aug - Dec	+322 April -322 Apr – June	+322 April -211 May - June -111 July – December
Upstream benefits	Eliminate flow spikes on American and Sacramento	Eliminate flow spikes. Enhance fall releases on American and Sacramento	Eliminate flow spikes on American, Sacramento and Feather	Eliminate flow spikes. Enhance fall releases on American, Sacramento, and Feather
Change in average February – June X2	-0.18 km (moved downstream)	+0.28 km (moved upstream)	-0.25 km (moved downstream)	No Change
Required/Historical/ Gamed Compliance with X2 standard for flex month (days)	18 required 23 historical 17 in game	18 required 23 historical 17 in game	18 required 23 historical 4 in game	18 required 23 historical 4 in game
Undercompliance volume	~25 TAF	~25 TAF	~150 TAF	~150 AF
Predicted % change in biological indices for Longfin smelt, American Shad, Pacific Herring, Crangon	Longfin smelt=+1.79% American shad=-0.4% Pacific herring=-0.1% Crangon=-0.91%	Longfin smelt=-2.68% American shad=-1.01% Pacific herring=-0.1% Crangon=-2.28%	Longfin smelt=+2.6% American shad=-0.48% Pacific herring=-0.2% Crangon=-1.08%	Longfin smelt=+0.02% American shad=-1.08% Pacific herring=-0.2% Crangon=-2.46%
Disposition of new water in upstream storage	Rereleased for outflow	Rereleased for instream flows and exports	Rereleased for outflow	Rereleased for instream flows, Delta outflow and exports
Net increased exports (TAF)	0	166	0	90 (approximately)

22 One element of the Tables requires additional discussion. As noted earlier in this

23 presentation, the gaming exercise disclosed that the SWP and CVP were operating in a manner

24 that very often resulted in over-compliance with the X2 objective. In other words, even when

25 storage releases were required to meet the X2 objective, more days of compliance were being

26 provided than are called for in the 1995 Bay-Delta Plan. As a result, in several instances, when

27 a flex was gamed, the required number of X2 days were still being met, if not exceeded, in spite

28 of the efforts of the gaming participants. From the standpoint of Tables, this means that the

1 percentage impacts on certain fishery resources are overstated, as they are measured from a
2 baseline of over-compliance, as compared to the proper baseline of actual compliance with the
3 Outflow Objective.

4 **D. What specific process is available to determine when flexing is appropriate**
5 **(also referred to as a decision tree)?**

6 The Export Water Users propose a specific process to determine when flexing is
7 appropriate.¹ That process, which incorporates the principles set forth above, involves two
8 steps.

9 **Step 1: Initial Consultation**

10 At the request of any of the United States Bureau of Reclamation, United States Fish &
11 Wildlife Service, NOAA Fisheries, California Department of Water Resources, and California
12 Department of Fish & Game (collectively the "Agencies"), the Agencies will meet to determine
13 whether a flex of the outflow objective should be considered. Such meeting can be requested:

- 14 (1) Immediately before an outflow objective begins controlling Delta operations, and
15 (2) If, during the time a particular outflow objective is controlling Delta operations,
16 there is a change in the fishery or hydrologic conditions that existed at the time
17 the objective became controlling.

18 If during Step 1, any one of the Agency representatives so requests, full consideration by the
19 Agencies of a flex shall occur (Step 2).

20 **Step 2: Full Consideration**

21 When full consideration is initiated, the Agencies shall:

- 22 (1) Develop an alternative or alternatives for how the objective could flex ("Action
23 Alternative(s)").
24 (2) Consider for each Action Alternative how the saved water could be subsequently

25
26 ¹ Based on the analyses performed in the Stakeholder and Export Water Users gaming processes, the
27 Export Water Users believe that the process described in this presentation can and should be used when
28 flexing the export objective and the Rio Vista objective (if authorized). See Exhibits A-D, attached hereto,
which contain the necessary changes to the 1995 WQCP and Decision Tree to allow for flexibility of the
outflow, export and Rio Vista objectives.

1 used.

2 (3) In determining how saved water should be used, the Agencies shall provide for
3 multiple use of the saved water whenever possible.

4 (4) As compared to the "no action" alternative, provide for each Action Alternative
5 (a) quantified estimates of population level effects on fishery resources, (b) quantitative
6 estimates of effects on water supply and water quality, and (c) quantified estimates of
7 uncertainty for both population level, water supply, and water quality effects.

8 (5) When considering a flex, the Agencies will not recommend a flex that goes
9 beyond sideboards that will be established by the State Board. The Export Water Users support
10 flexing within the following sideboards:

11 (a) An X2 flex shall only be considered when the Port Chicago standard is
12 triggered,

13 (b) No flex shall cause Delta outflow to fall below 20,000 cfs,

14 (c) No flex shall cause the February though June average location of X2 to
15 move more than one kilometer further upstream from the Golden Gate Bridge than would occur
16 without the flex.

17 (d) No flex shall impair the ability of the United States Bureau of
18 Reclamation or the California Department of Water Resources to meet their respective
19 contractual obligations.

20 (e) No flex shall cause a significant adverse environmental impact.

21 (6) If the Agencies agree on an Action Alternative, the Agencies shall immediately
22 so notify the State Board Executive Officer. Within 24 hours of reaching the decision, the
23 Agencies shall provide the Executive Officer with a written description of the Action
24 Alternative and the bases for the decision. The Agencies may begin implementing the Action
25 Alternative 24 hours after delivering the written notification. If the Executive Officer does not
26 object to the decision within 5 days, the decision by the Agencies will remain in effect. If the
27 Action Alternative has been implemented, but the Executive Officer objects to the decision
28 within the 5-day period, the SWP and CVP shall be deemed to have been in compliance with

1 the objective during any under-compliance that results directly or indirectly from implementing
2 the Action Alternative.

3 (7) Each year, whether or not any flexes have occurred, the Agencies shall, by
4 December 31 of that year, transmit to the State Board Executive Officer a report summarizing
5 all flexing considerations, accounting for the changed water use, describing how the saved
6 water was allocated among beneficial uses, and estimating the effects on beneficial uses of
7 flexing over the course of the prior year, consistent with the requirements under (5) and (6)
8 above. As soon as possible, the Executive Officer shall make the report available for public
9 review. In circumstances where no agreement for a proposed flexes was reached, the report
10 may contain majority and minority views.

11 (8) The Agencies shall fund one SWRCB staff member who will be included in all
12 deliberations required to reach a decision on an Action Alternative. The staff member shall:

13 (a) Participate in all actions required under Step 2, paragraphs 1-5 and 7,
14 above, but shall not be a voting member.

15 (b) Assist the Executive Officer of the SWRCB in determining whether or
16 not to object to an Action Alternative.

17 (c) Assist the Agencies in developing proposed amendments or supplements
18 to the Decision Tree.

19 E. **What impacts would the proposed modifications cause to the beneficial uses**
20 **listed in the 1995 Plan?**

- 21 1. The reliability of meeting the objectives for municipal and agricultural
22 beneficial uses.

23 Flexing the X2 objective will generally only be needed when a descending hydrograph
24 triggers the Port Chicago objective, and requires large releases of previously stored water to
25 maintain the objective during the following month. While the Export Water Users do not
26 expect this condition to be very common, this did occur in 2004, when hundreds of thousands of
27 acre-feet were required to maintain the objective that could not have been maintained in a state
28 of nature. Under these circumstances, flexing could significantly increase water available for
multiple beneficial uses.

1 Alleviating the over-compliance problem would generate additional SWP and CVP
2 water supplies, which would often be irrevocably lost, particularly in drier years.

3 2. The reliability of meeting the objectives for the protection of fish and
4 wildlife beneficial uses.

5 Flexing of the Outflow Objective will sometimes lead to a calculated reduction in
6 survival indices for a few species of fish or shrimp. However, by definition, through the
7 sideboards, no flex can occur that will move the average location of X2 by more than one
8 kilometer, nor can any flex cause a significant adverse environmental impact. Further, the
9 increases in stored water that can be created through flexes, can help reduce upstream water
10 temperatures for listed salmonids and may be available for other fishery purposes later in the
11 year. The Export Water Users do not believe that a flex will receive unanimous concurrence
12 among all agencies, unless, on balance, the overall benefit to the total fishery resource is
13 expected to be improved.

14 As stated several times above, it must be remembered that what the Export Water Users
15 are proposing is a *structure* that will allow a flex to be considered and approved, when the
16 proper time arises and the proper benefits can be derived. Installing this mechanism has no
17 impact on municipal and agricultural water supplies or on fishery conditions in the Delta. But
18 its existence may, in the future, benefit the multiple beneficial uses covered by the 1995 Bay
19 Delta Plan.

20 With respect to providing a means to avoid over-compliance, it will have no impact on
21 the current fishery objectives. It is being proposed simply to recognize that the hydraulic and
22 hydrologic complexity of the Bay-Delta system requires a buffer that can respond to the
23 potential of under compliance within a single month.

24 3. Meeting the current values of the Net Delta Outflow Index, calculated on
25 the daily, three-day, seven-day, and fourteen-day running averages and
the monthly average.

26 The purpose of the flexing proposal is not intended to help meet the existing Outflow
27 Objectives. On the contrary, it is an effort to have the 1995 Bay-Delta Plan recognize that there
28 may be overriding reasons, in some water year types, not to maintain such flows. When the

1 benefits of maintaining the Port Chicago objective are small and the cost in terms of stored
2 water is very great, the Export Water Users believe that real-time water management is a far
3 better regulatory approach than uncompromising adherence to a ten-year old numerical flow
4 calculation.

5 With respect to providing a means to avoid over-compliance, it will have no impact on
6 meeting the current values of the Net Delta Outflow Index.

7 4. The position of X2 (2 mmhos isohalene) compared with current footnote
8 14.

9 Based on the sideboards, a flexing action will never change the average location of X2
10 by greater than one kilometer. In the gaming, the change never came close to that maximum
11 value.

12 5. The timing, quantity, and rate of exports or diversions from the southern
13 Delta at the Tracy, Banks, North Bay Aqueduct, and Contra Costa
pumping facilities.

14 Since the current proposal is simply to set up the process, it is impossible to predict how
15 any particular flex proposal, if approved, would affect exports in any year. This aspect of a flex
16 proposal would be considered in determining if the flex would move forward and how the water
17 saved would be used. The sideboards also include a requirement that no flex should impact
18 SWP and CVP contract obligations. This condition is designed, in part, to limit impacts on
19 otherwise planned SWP and CVP diversions. With respect to the Contra Costa pumping
20 facilities, the sideboard requiring minimum flows of 20,000 cfs for any flex was specifically
21 aimed at ensuring that there would be no impacts on Delta M&I water quality.

22 F. What are the analyses of the California Department of Fish and Game, the
23 United States Fish and Wildlife Service, and the National Marine Fisheries
24 Service regarding the impacts of any specific flexing proposal on fish and
wildlife beneficial uses?

25 As noted earlier, the Export Water User proposal involves an amendment to the 1995
26 Bay-Delta Plan to authorize the State and Federal fish agencies and the SWP and CVP operators
27 to consider flexes in the future. Therefore, there are no specific proposals before the State
28 Board that can be used to measure impacts. This is one of the reasons the decision tree

1 includes, as a sideboard, that a flex cannot cause a significant impact on the environment. The
2 Export Water Users expect that flexes will only be authorized by the State and Federal fisheries
3 agencies and the SWP and CVP operators when, by unanimous vote, the impacts on fish
4 correlated with the X2 objective are considered to be minor and the benefits of flexing are
5 considered to provide a net improvement to the total fishery resources of the Bay-Delta system.

6 With this said, the Export Water Users are not aware of any independent analyses
7 performed by California Department of Fish and Game, the United States Fish and Wildlife
8 Service, or the National Marine Fisheries Service regarding the impacts of any specific flexing
9 proposal on beneficial uses. As described above, however, those agencies did participate in the
10 Stakeholder Game. Based on the games and other scientific studies, the Export Water Users
11 believe it is possible to predict, within certain boundaries, the potential beneficial and adverse
12 impacts of specific flexing proposals.

13 Therefore, what the State Board needs from the State and Federal fish agencies is a clear
14 presentation of the quantitative techniques those agencies will accept for evaluating the fishery
15 effects that are derived from the current water quality objectives or from changes to those
16 objectives. The answer that no such techniques are available is unacceptable. *If there is enough
17 scientific information on the fishery effects of flows and water quality to establish a water
18 quality objective in the first place, there is certainly enough information to evaluate the effects
19 of changes to that objective.*

20 If the State and Federal fish agencies do not, as requested by the State Board, provide
21 that analysis at the workshop, the Export Water Users will provide their analysis in their written
22 closing statement.

23 IV. CONCLUSION

24 The Export Water Users, through the gaming process, learned two important points.
25 First, alterations can be made in the Outflow, Export and Rio Vista Objectives with no or small
26 impacts on limited fish species, and large gains in water for the SWP, CVP and/or fishery
27 resources. Second, the SWP and CVP operators feel compelled by the way the Outflow
28 Objective is written to operate the projects in a manner that often results in over-compliance.

1 Therefore, the Export Water Users request the State Board to take the following separate
2 but complementary actions (as presented in detail in Exhibits 1-4):

3 1. Amend the 1995 Bay-Delta Plan to give the State and Federal fish agencies and
4 the SWP and CVP operators the authority to consider and approve flexing of the Delta Outflow
5 Objective, subject to the procedures and sideboards described in Exhibit 4 to this presentation.

6 2. Amend footnote 14 to Table 3 of the 1995 Bay-Delta Plan to enable the SWP
7 and CVP operators to make up days of X2 undercompliance in one month with increased days
8 in following months.

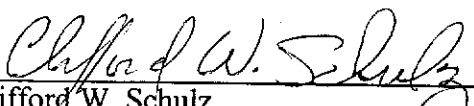
9 3. For the flexibility of the Export Objective that is already in the 1995 Bay-Delta
10 Plan, make the procedures for that flex consistent with those adopted for the Delta Outflow
11 Objective.

12 4. Allow a flex of the Rio Vista flow objective through procedures that are
13 consistent with those adopted for the Delta Outflow objective.

14 Dated: August 24, 2005

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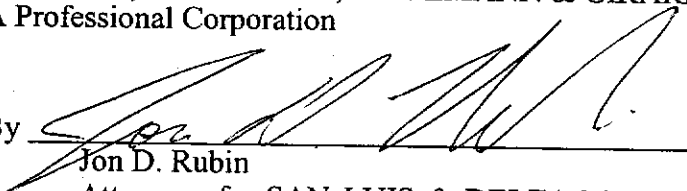
16 By _____
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19 Dated: August 24, 2005

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21 By _____
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