

LO219 SRCSD



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Phil Isenberg, Chairman and Council Members
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**Subject: Draft Delta Plan Program Draft Environmental Impact Report,
November 2011**

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Dear Chairman Isenberg and Council Members:

The Sacramento Regional County Sanitation District (SRCSD) appreciates the opportunity to review and comment on the Delta Stewardship Council's (Council) Draft Delta Plan Environmental Impact Report (Draft EIR). We have actively participated in the Delta Plan development by attending meetings, reviewing and commenting on documents, and meeting with Council members and Council staff. However, even with all of our previous participation, we find this Draft EIR difficult to review and we have serious concerns that it contains several deficiencies. The Draft EIR has an inadequate project description that does not sufficiently evaluate all environmental impacts of the Delta Plan, and many of its statements are not supported by substantial evidence. In summary:

- The Draft EIR's project description is confusing and incomplete because it fails to link the Delta Plan's policies and recommendations to real or potentially foreseeable projects and their associated environmental impacts. The lack of information regarding how the Delta Plan will affirmatively achieve the project objectives and co-equal goals prevents the public from being able to fully analyze the environmental impacts of the project and is inconsistent with CEQA requirements.
- The Draft EIR is incomplete in that it does not acknowledge that implementation of the Delta Plan also involves more than just tradeoffs between short-term construction impacts of plan-related projects and long-term environmental benefits; there are also tradeoffs between the benefits sought by the Delta Plan and the significant long-term impacts associated with the projects that create the benefits (e.g., increased emissions from greenhouse gases). Not only must these impacts be plainly disclosed, but CEQA also requires that provisions for mitigating the Delta Plan's contribution to these

Technology in balance with nature

LO219-1

LO219-2

LO219-3

Response to comment LO219-1

Comment noted.

Response to comment LO219-2

Please refer to Master Responses 2 and 3.

Response to comment LO219-3

Please refer to Master Responses 2 and 3.

significant impacts be addressed in the Draft EIR and in the adoption of the Delta Plan.

- The Draft EIR does not clearly articulate how the incorporation of the BDCP into the Delta Plan will change its scope and regulatory effect and contains no discussion of the resulting environmental impacts. It would be both imprudent and inconsistent with CEQA's informational mandate for the Council to adopt a Plan that is likely to have far-reaching significant impacts as a result of incorporation of the BDCP prior to the completion of the BDCP and certification of the BDCP EIR.
- The Draft EIR does not disclose the important elements of a Finance Plan, does not discuss the likelihood that funding will be available for such projects, nor does it address the timing of any such funding. This information is critical to understanding the feasibility of the proposed Delta Plan, especially in relation to the EIR Alternatives.

Our comments on the Draft EIR are provided below, followed by an attachment of specific comments by section and page number.

The Project Description is Inadequate

The Project Description is incomplete and does not provide the reader with an adequate understanding of what the Delta Plan is intended to do, and what changes the public can expect as a result of adopting the Delta Plan. An "accurate, stable and finite project description in the sine qua non of an informative and legally sufficient EIR." (San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus (1994) 27 Cal.App.4th 713, 730.) The failure of the Draft EIR to adequately define and identify the scope of the project precludes the public from being able to assess the Project's environmental impacts. (See *ibid* ["an accurate project description is necessary for an intelligent evaluation" of project impacts.]) Indeed, with the wide reaching nature of the Delta Plan and its invasive policies and recommendations, the lack of an accurate, stable, and finite project description leaves stakeholders unsure of the Delta Plan's impact on the environment.

The Draft EIR asserts that the Delta Plan "will be a legally enforceable, comprehensive management plan for the [Delta] that achieves the coequal goals and all of the inherent subgoals and objectives . . ." (See e.g. Draft EIR, 2A-1, pp. 2A-84.) On the other hand, the Draft EIR characterizes the Project as being comprised merely of regulatory policies and non-binding recommendations that are no more than "statements of policy direction to other agencies which, if the direction is followed, could lead to other types of specific physical action." (Draft EIR, p. ES-2.) The Draft EIR indicates that the "Delta Plan does not direct the construction of specific projects, nor would projects be implemented under the direct authority of the Delta Stewardship Council." (Draft EIR, pp. 3-85.) Instead, the Draft EIR posits that the Delta Plan seeks to achieve the coequal goals by "encouraging" various actions and projects. If it is true, as the Draft EIR suggests, that the Plan itself will not mandate any physical changes in the environment, it is not clear how the Plan will achieve its goals, subgoals and objectives. Neither the Delta Plan nor the Draft EIR explain how the Delta Plan will achieve the coequal goals if the Delta Plan does not mandate any actions, and simply assumes that other agencies will be successful in implementing the recommendations and policies.

LO219-3

LO219-4

LO219-5

LO219-6

LO219-7

Response to comment LO219-4

Please refer to Master Response 1.

Response to comment LO219-5

This is a comment on the project, not on the EIR. The project analyzed in this EIR is the proposed Delta Plan, which includes Chapter 8, Funding Principles to Achieve the Coequal Goals. As stated on page 308 of the Final Draft Delta Plan, "[t]he Council proposes to initiate development of a finance plan following adoption of the Delta Plan." The Guiding Principles for the future finance plan are described on pages 308 to 309, and three funding recommendations are stated on page 310. Please refer to Master Response 2. The Delta Plan must be reviewed at least once every five years and may be revised as the Council deems appropriate pursuant to Water Code section 85300(c).

Response to comment LO219-6

Please refer to Master Response 1.

Response to comment LO219-7

Please refer to Master Responses 1 and 3.

If the Plan will have no actual effect on the environment, the Draft EIR needs to be more clear about the lack of any real changes and acknowledge that the Plan as drafted will have no discernible effect on achievement of the coequal goals. LO219-8

The lack of any clear identification of how the Plan affirmatively achieves the project objectives also prevents any analysis of relative environmental impacts of the Project. In particular, if the Project will not result in any physical changes to the Delta region, it is not clear how the Project is superior to the No Project Alternative. The Draft EIR dismisses potential alternatives, including the No Project alternative, explaining that none of the alternatives will successfully achieve the coequal goals – at least not as well as the Project. LO219-9

In each of the “Policy Elements” identified in Table 2-4 of the Draft EIR, it suggests that the Project will effectively do “more” than the No Project Alternative to achieve the Policy Elements. However, the Draft EIR fails to identify and discuss how the project does more and what changes result from the Proposed Project. If the Draft EIR’s argument that the Project will obtain results that none of the alternatives can obtain is to be believed, the Draft EIR must explain with reference to substantial evidence how the Project obtains these results. LO219-10

The Draft EIR states that the primary effects of the Plan will result from agencies implementing the 12 policies that will have regulatory effect. However, the Draft EIR does not list these policies anywhere in the body of the massive document; they are effectively buried in an appendix to the Draft EIR. CEQA requires that the information in an EIR be presented in a manner calculated to adequately inform the public and decision-makers, who may not be previously familiar with the details of the project. The failure to include the 12 Delta Plan policies in the project description or to restate them in the relevant impact discussions makes it very difficult for the reader to understand the nature of the project and its potential effects, as only general descriptions are provided in the Draft EIR and the reader must continually refer to an appendix located thousands of pages farther along in the documents. LO219-11

Additionally Water Quality is an element of the plan, but not an element of the Draft EIR. To find a discussion on water quality impacts in the Draft EIR each section must be reviewed. The Delta Plan has a water quality element, and reviewing water quality environmental impacts among planning documents for the Delta would be much easier for the public if the same chapter, section, appendix titles were used in the Draft EIR. LO219-12

The Project Evaluations Are Incomplete – The EIR Must be Revised to Address All Environmental Aspects of the Delta Plan, and Adequately Characterize the Environmental Trade Offs Associated with the Delta Plan

The EIR should identify mitigation for the continued use of the South Delta pumps into the future. Such continued use will occur under any of the alternatives considered, and is recognized to have caused significant long term impacts (losses far exceeding the 110 million fish that were “salvaged” through entrainment, pre-screen predation and salvage operations during past operation of the state and federal water projects). Implementation of a north Delta intake under the BDCP is not mitigation for the significant loss of fish that LO219-13

Response to comment LO219-8

As described in Section 2B of the Draft Program EIR, the Delta Stewardship Council does not propose or contemplate directly authorizing any physical activities, including but not limited to construction or operation of infrastructure. Rather, through the Delta Plan, the Delta Stewardship Council seeks to influence the actions, activities, and/or projects of other agencies, the details of which would be under the jurisdiction and authority of the agencies that will propose them in the future and conduct future environmental review. Without specific details of future projects, it is not possible for the Delta Stewardship Council to develop quantitative thresholds of significance, conduct site-specific quantitative analyses, and design site-specific mitigation measures. Accordingly, in the absence of specific proposed physical projects, this EIR makes a good faith effort to disclose the potentially significant environmental effects of the types of projects that may be encouraged by the Delta Plan and to identify program-level mitigation measures. Impacts on each of the potentially affected resources areas are analyzed at a program level in Sections 3 through 21 of this EIR. Please refer to Master Response 2.

Response to comment LO219-9

Please refer to Master Response 3.

Response to comment LO219-10

Please refer to Master Response 3.

Response to comment LO219-11

The policies and recommendations of the Fifth Staff Draft Delta Plan and the alternatives are reproduced in Appendix C of the DEIR. The Final Draft Delta Plan policies and recommendations are reproduced in Appendix C of the RDEIR, and changes from the policies and recommendations in the Fifth Staff Draft Delta Plan are shown by underlining and strikeout.

Response to comment LO219-12

Water quality impacts are described in Section 3 of the EIR. The impacts of actions encouraged to improve water quality are described in Sections 3 through 21 of the EIR.

Response to comment LO219-13

As defined by CEQA, a significant effect on the environment (significant impact) is a substantial adverse *change* in the physical conditions within the area affected by the project (CEQA Guidelines § 15382). This EIR analyzes significant impacts that may occur due to implementation of the proposed Delta Plan and the alternatives, and identifies mitigation measures to reduce these significant impacts. Continued use of south Delta intakes by the CVP and SWP is part of the environmental baseline pursuant to CEQA Guidelines section 15125(a) because it was an existing condition at the time the Notice of Preparation for this EIR was issued.

will continue to occur in the South Delta, since exports from the South Delta is projected to still represent the vast majority of water exported by the state and federal projects (Appendix B, Working Draft Bay Delta Conservation Plan December 2011).

LO219-13

Mitigation for the continued operation of the South Delta pumps must also address the indirect effects of South Delta exports, including food web effects, altered flow regime, modified salinity regime, and increased residence time that increase the suitability of the Delta to invasive species and Microcystis.

Since one of the co-equal goals of the Delta Plan and its enabling legislation is “water supply reliability,” the EIR needs to clearly state that water supply reliability is not synonymous with or equivalent to the concept of increasing Delta exports. The EIR also needs to address whether reducing exports to levels which result in a sustainable Delta ecosystem will enhance the reliability of those lesser export amounts.

For instance, the Draft EIR should address the following questions: What reduction in exports from the Delta, in comparison to current conditions, is associated with the Proposed Project? On page 2A-67, the EIR states that exports of Delta water would be greater under the No Project Alternative than under the Proposed Project. For other project alternatives, statements are made about “more” or “less” Delta exports, in relative terms. What is the baseline for Delta export volumes in the Draft EIR? How was that baseline established? What export volumes are associated with the Proposed Project?

LO219-14

The Draft EIR acknowledges that many of the actions that may result from the Delta Plan will result in significant adverse impacts. The Draft EIR further explains that “in many regards, the alternatives involve varying degrees of environmental tradeoff between short-term impacts from construction (in areas including air quality, cultural and paleontological resources, noise, transportation, geology/soils and utilities)” and long term reduction in impacts to water supply, water quality, flood risk and ecosystem health” (Draft EIR, Section 25.4, p. 25-2). This statement is incomplete in that it does not acknowledge that implementation of the Delta Plan also involves more than just tradeoffs between short-term construction impacts of plan-related projects and long-term environmental benefits; there also are tradeoffs between the potential benefits sought by the Delta Plan and the significant impacts associated with the projects that create the potential benefits.

LO219-15

For example, the Draft EIR says a goal of the Delta Plan is to improve water quality consistent with achieving regulations, and that the Draft EIR assumes the Delta Plan will be successful (Draft EIR, pp. 1-13; ES-2, n.3). A number of Delta Plan recommendations are directed at advancing new or heightened water quality regulatory requirements (see, e.g., WQ R1, WQ R5, WQ R6). The Draft EIR further states that it assumes the Delta Plan will lead to an increase in Delta projects to reduce stressors, which could include water quality constituents (Draft EIR p. 2-A-36). The Draft EIR explains that the Delta Plan’s efforts to improve water quality by expediting the implementation of heightened water quality standards may lead to construction of new or expanded wastewater treatment facilities, the construction and operation of which would have significant effects (See, e.g., Draft EIR, p. 2A-39-40; Impact 2-2, Section 20.4.3.1.2, Draft EIR p. 20-9). While such facilities may have beneficial effects to water quality, the construction and operation of these facilities may also result in significant, adverse environmental effects, not the least of which will be dramatically

LO219-16

Response to comment LO219-14

Reliable water supply is defined in the Delta Reform Act, and involves meeting the needs for reasonable and beneficial uses of water, sustaining the economic vitality of the State, and improving water quality to protect human health and the environment (Water Code § 85302(d)(1)-(3)). Please refer to Final Draft Delta Plan, Chapter 3.

Response to comment LO219-15

This EIR describes, at a program level, the significant environmental impacts of the construction and operation of projects that may be encouraged by the Delta Plan which also have environmental benefits, such as Delta ecosystem restoration and water quality improvement projects. The next comment, LO219-16, acknowledges that this is the case.

Response to comment LO219-16

Comment noted.

increased emissions of greenhouse gases as a result of the substantially higher energy demands associated with enhanced treatment.

It is important that the Draft EIR acknowledge that the Plan will result in environmental tradeoffs between the benefit of various desired outcomes, such as improved water quality and a more reliable water supply, and permanent increases in other significant impacts. Not only must these impacts be plainly disclosed, but CEQA also requires that provisions for mitigating the Delta Plan's contribution to these significant impacts be addressed in the Draft EIR and the adoption of the Delta Plan.

A 2010 report titled "Technical Memorandum: Analysis of Costs and Benefits of Advanced Treatment Alternatives for the Sacramento Regional Wastewater Treatment Plant" (Cost and Benefit Analysis) discusses the environmental tradeoffs of advanced wastewater treatment. The report concluded that environmental tradeoffs, or "cross media impacts," were significant for advanced wastewater treatment. There are many advanced treatment options (including reverse osmosis – a treatment alternative that is mentioned quite often in the Draft EIR; See, e.g., p. 2A-44) for wastewater treatment plants and all of them have cross media impacts, including increased greenhouse gas emissions and power consumption. The Draft EIR assumes that the Delta Plan's policies and recommendations will lead to advanced wastewater treatment, and therefore must evaluate the cross media impacts.

Attachment Two is an excerpt from the Cost and Benefit Analysis, and the full report can be made available if requested.

The Draft EIR Fails to Discuss How Incorporation of the Bay Delta Conservation Plan Will Affect the Scope and Impacts of the Delta Plan

The Delta Reform Act requires the BDCP to be automatically incorporated into the Delta Plan if the BDCP meets certain statutory requirements. The BDCP is described as covering the operation of the State Water Project¹, the construction and operation of facilities for movement of water through Delta, the implementation of conservation actions, and diversion and discharge of water by Mirant. However, the Draft EIR does not clearly explain how the incorporation of the BDCP into the Delta Plan will change the scope and regulatory effect of the Delta Plan. Thus the Draft EIR's discussion of the BDCP raises more questions than it answers, both as to the BDCP effect on the scope of the Delta Plan and its potential environmental effects.

Standing on its own, if the BDCP is adopted as a HCP/NCCP, it will apply only to those entities that voluntarily participate and to those who obtain ESA coverage under the terms of any permits issued by the relevant agencies. How will the regulatory effect of the BDCP change if it is incorporated into the Delta Plan? If the BDCP is incorporated into the Delta Plan, will its provisions be deemed to constitute "policies" of the Delta Plan with which all covered actions under the Plan to demonstrate consistency? If so, then the BDCP's

¹ The BDCP will also provide certain authorization for the continued operation of the federal Central Valley Project (CVP). It is unclear why the DRAFT EIR omits mention of operation of the CVP from a description of the BDCP.

LO219-16

LO219-17

LO219-18

LO219-19

Response to comment LO219-17

Please refer to response to comment LO219-15.

Response to comment LO219-18

As described in Section 21 of the EIR, actions encouraged by the proposed Delta Plan and the alternatives would result in significant adverse impacts associated with greenhouse gas emissions. Economic impacts are not effects on the environment under CEQA, and are not analyzed in the EIR (CEQA Guidelines §§ 15064(e) and 15131).

Response to comment LO219-19

Please refer to Master Response 1.

incorporation into the Delta Plan would dramatically expand the scope of both the BDCP and the Delta Plan, converting what was intended to be voluntary participation in an HCP into a mandatory regulatory program affecting a much wider range of actions within the Delta.

While there is a passing reference to imposing the BDCP on third parties through consistency determination, Section 23 of the Draft EIR completely fails to discuss any of these potentially significant issues (see e.g. Draft EIR, 2A-24 ["If BDCP is incorporated into the Delta Plan, it will become part of the Delta Plan and, therefore, part of the basis for future consistency determinations."]). How will the BDCP be used for future consistency determinations, and what impacts are associated with imposing the BDCP on non-participants?

CEQA requires that an EIR evaluate the whole of the action that will be approved, including the reasonably foreseeable indirect physical changes to the environment that will occur from the project. Given that the Delta Reform Act deprives the Delta Council of any discretion as to the Delta Plan's incorporation of the BDCP, the BDCP should properly be treated as a reasonably foreseeable future element of the Project, rather than a cumulative project, as in the Draft EIR. The Draft EIR should provide a full discussion of the BDCP in the project description and evaluate the impacts of the BDCP as part of the project and all alternatives. The Draft EIR should be revised to clearly explain how, if at all, the mandatory incorporation of the BDCP into the Delta Plan would alter or expand the scope of the Delta Plan's regulatory effect, and analyze the potential environmental effects of this expanded regulatory scope of the BDCP.

LO219-19

When the Legislature directed that the BDCP be automatically incorporated into the Delta Plan, it must have presumed that the BDCP would be completed prior to the Delta Plan and thus the scope and impacts of the BDCP would be known to the Delta Council, the public, and potentially regulated entities. Given that the BDCP remains incomplete and continues to evolve, it is impossible to understand its impact on the Delta Plan. The lack of information in the Draft EIR about the regulatory and environmental consequences of incorporating the BDCP into the Delta Plan makes it impossible for the Council and the public to understand the environmental consequences of the Delta Plan. The significance of this information to potentially regulated parties cannot be understated. It would be both imprudent and inconsistent with CEQA's informational mandate for the Delta Council to adopt a Delta Plan that is likely to have far-reaching significant impacts as a result of incorporation of the BDCP prior to the completion of the BDCP and certification of the BDCP EIR.

However, if the Council elects to move forward and certify an EIR on the Delta Plan as drafted, to comply with CEQA, it must revise the Draft EIR so that the project description and impacts analysis clearly and thoroughly explain the scope of the Delta Plan with respect to the BDCP and evaluate the resulting environmental impacts. The Draft EIR must be revised to fully explain the BDCP's role in the Delta Plan and the type and significance of environmental effects that will occur if all covered actions are required to comply with the BDCP. Because the BDCP continues to evolve, the revised EIR should describe the changes that have been made to the BDCP since the Draft EIR was prepared as well as evaluate any significant environmental effects associated with those changes. The revised Draft EIR must then be re-circulated for public review and comment so that the public, potentially regulated parties, and the Delta Council can properly evaluate the project and its impacts.

No comments

- n/a -

The Plan Should Exclude From the Definition of "Covered Action" Projects Undertaken to Comply with Regulatory Actions of Other State Agencies

The Draft EIR contains statements indicating that the Proposed Plan will involve dual regulation of certain actions taken as a result of regulatory actions of other state agencies, a situation that will result in unnecessary delay in the implementation of projects that would have a positive impact on the environment. While the Delta Plan excludes certain activities from the definition of a covered action, including regulatory actions by other state agencies, it also states that the underlying actions regulated by those agencies would not be exempt. (Draft EIR, p. 2A-2 – 2A-4.) Thus, the exemption is seemingly ineffective. This apparent failure to state that activities are exempt if undertaken to implement regulatory requirements, such as wastewater treatment plant upgrades necessitated by a NPDES permit issued by the Regional Water Quality Control Board, may have significant adverse consequences for these projects. Entities implementing regulatory requirements of other state agencies may be required to prepare detailed findings of consistency with the Delta Plan, and environmentally beneficial projects will inevitably be delayed. Such delays are unreasonable, counterproductive, and will have adverse environmental impacts that are not discussed in the Draft EIR.

LO219-20

Instead of subjecting such actions to consistency determinations that will result in additional cost and unreasonable delay, the Delta Plan should do everything possible to facilitate and encourage projects that implement regulatory requirements. The Delta Plan should be revised to clearly exempt projects that implement NPDES permits and similar regulatory requirements adopted for the protection of the environment, or at a minimum acknowledge and discuss the adverse environmental impacts that would result from not recognizing such an exemption.

Information About the Financing of Delta Plan Projects Is Necessary to Understand the Feasibility of the Project in Relation to Draft EIR Alternatives

Information about the financing of Delta Plan projects is necessary to understand the feasibility of the project in relation to Draft EIR alternatives. The EIR does not address the Finance Plan. (Draft EIR, p. 2-56.) However, information about the Finance Plan is critical to understanding the feasibility of the proposed Delta Plan, especially in relation to the EIR alternatives. The Delta Plan assumes that it will be successful and that the funding for its projects will come from entities contributing to the problem (i.e., "stressor pays"; See Draft EIR, p. 2A-55). However, as a result of Proposition 26, the State and the Delta Council might lack authority to levy fees for projects contemplated by the Delta Plan, without a 2/3 majority vote of the legislature for approval. History has shown that such approval is highly unlikely. The EIR should disclose the key elements of the Finance Plan and discuss the likelihood that plan funding will be available and the timing of any such funding. Without this information, the public cannot understand the relative feasibility, and thus merits, of the project and the alternatives.

LO219-21

SRCS D believes the overarching principles for developing a viable finance plan include identifying programs and projects and their respective funding sources, establishing an equitable assignment of costs based on a

LO219-22

Response to comment LO219-20

This is a comment on the project, not on the EIR.

Response to comment LO219-21

Please refer to LO219-5. Economic impacts are not effects on the environment under CEQA, and are not analyzed in the EIR (CEQA Guidelines §§ 15064(e) and 15131).

Response to comment LO219-22

Please refer to response to comment LO219-5.

clear nexus, avoiding duplication (entities should not pay twice), and encouraging through incentives, investment in monitoring, research, and enhanced projects that provides an extra benefit to the Delta.

LO219-22

The Delta Plan must include clear delineation of major programmatic funding needs, a broad and inclusive analysis of potential funding sources, and consideration of a comprehensive array of financing mechanisms. The finance plan should be phased and follow an adaptive management approach, focusing on meeting short term needs, keeping a variety of long term funding options available, and implementing long term funding options as specific projects and costs become clear. Cost benefit or return on investment type approaches are essential in determining where value is created thereby enabling priorities to be set.

In developing any “beneficiary pays” and “stressor pays” financing approaches, a broad view of beneficiaries and stressors must be taken. All significant beneficiaries and stressors must be considered regardless of whether they have a known source of funding behind them, and it is essential to make a rational determination of the relative proportion of benefits and stresses. State and Federal governments bear a responsibility for financing significant portions of Delta programs, and local government entities should not bear an undue burden when state and Federal dollars become scarce. Any stressor fees applied should be based on the degree to which the stressor is affecting beneficial uses. For discharges to the watershed (point and non-point), stressor fees should not be based on the volume of pollutants discharged, but rather based on the degree to which pollutant loading affects beneficial uses.

LO219-23

Finally, there should be no double jeopardy; entities should not have to pay twice. Investments towards compliance with regulatory requirements, investments in ecosystem restoration, and investments that otherwise further the co-equal goals should be inventoried and accounted for. Any viable long-term financing plan must protect against duplication of effort and duplication of charges, and provide incentives that encourage organizations to invest in monitoring, research and projects that provide extra benefit to the Delta.

LO219-24

The Draft EIR's Discussion of the No Project Alternative is Inconsistent and Not Supported by Substantial Evidence in the Record

The Draft EIR's discussion of the No Project Alternative and the likely effects of this alternative is internally inconsistent and contradicted by evidence in the Draft EIR itself. For example, the Draft EIR's discussion of Water Quality Improvement states that under the No Project Alternative, “drinking water quality would continue to be impaired in communities in the Delta and areas outside the Delta.” (Draft EIR, p. 2A-88.) No evidence or analysis is cited in support of this conclusion of drinking water impairment. The Draft EIR also states that the “[i]mplementation of additional local and regional water treatment facilities may not be reasonably expected to occur in the foreseeable future under the No Project Alternative based on current plans and available infrastructure.” (Ibid.)

LO219-25

These statements are contradicted by information in the Draft EIR regarding the ongoing efforts of the Regional Water Quality Control Board to develop more stringent and comprehensive water quality objectives that can be expected to drive the construction of additional treatment facilities. (See, e.g., Draft EIR p. 2A-40 et seq., section 2.2.3.1.) In fact, these ongoing efforts are recognized in the numerous Delta Plan

Response to comment LO219-23

Please refer to response to comment LO219-5.

Response to comment LO219-24

Please refer to response to comment LO219-5.

Response to comment LO219-25

Please refer to Master Response 3. Existing water quality conditions are described in Section 3.3 of the EIR. It is assumed that no additional facilities or changes would occur under the No Project Alternative compared to the existing conditions and that the water quality degradation would continue.

recommendations encouraging the adoption of these standards. (Id.; see also Draft Plan Recommendations WQ R1, WQ R5, WQ R6.) If these Regional Water Quality Control Board regulatory efforts cannot be expected to result in improved water quality, what is to be gained by the Delta Plan encouraging their adoption? And many wastewater treatment facilities that discharge into the Delta are in the process of planning for or constructing upgraded treatment facilities.

LO219-25

If the Delta Plan merely encourages the adoption of water quality regulations that are already being considered by other agencies, and new or modified wastewater treatment facilities are a likely consequence of both the Draft Plan and the No Project Alternative, it is not clear what the evidentiary basis is for concluding that water quality would improve as a result of the Delta Plan and thus that the project offers any environmental benefit over the No Project Alternative. The Draft EIR's discussion of the No Project Alternative appears to be a "straw man" designed to make the proposed project appear more desirable, rather than a realistic reflection of future conditions under the existing regulatory environment.

Conclusion

SRCS D appreciates the efforts of the Delta Stewardship Council and the magnitude of the tasks that lie ahead. However, SRCS D remains concerned that the Draft EIR for the Delta Plan does not adequately describe the project or its alternatives, does not provide adequate information to identify the potential environmental impacts of the project, and ignores likely impacts to SRCS D and many other stakeholders throughout the region. Moreover, the Draft EIR fails to account for the inclusion of BDCP into the Delta Plan and the associated environmental impacts as a result of implementing the BDCP. We believe the issues identified above need to be thoroughly addressed in the Draft EIR before it can be considered adequate under CEQA. Therefore, SRCS D requests that the Council not approve the Draft EIR on the fifth draft of the Delta Plan and that the EIR be rewritten based on the comments received and the next version of the Delta Plan. If you have any questions, please contact me at (916) 876-6092 or mitchell@sacsewer.com.

LO219-26

Sincerely,



Terrie L. Mitchell
Manager, Legislative and Regulatory Affairs

Attachment One: Specific Comments by Section and Page Number

Attachment Two: "Technical Memorandum: Analysis of Costs and Benefits of Advanced Treatment Alternatives for the Sacramento Regional Wastewater Treatment Plant (2010)"

Response to comment LO219-26

Please refer to responses to comments LO219-2 through LO219-25.

Attachment One: SRCSD Specific Comments by Section and Page Number

Executive Summary:

- ES-5: Alternatives 1A and 1B do not achieve the co-equal goal of ecosystem protection since they would result in an increase in Delta exports from the system. As noted in the SWRCB Delta flow criteria report, the Delta ecosystem needs a reduction over current and recent past Delta export volumes. Alternatives which increase exports should be considered to be fundamentally invalid in failing to achieve one of the co-equal goals. LO219-27
- Pg ES-6: There are sub-alternatives to Alternative 2 that may be more feasible/ reasonable. For instance, the specific means to address habitat or flood control measures can be disconnected from measures to decrease Delta exports. The Draft EIR analysis of this alternative should decouple these elements. LO219-28
- Pg ES-8: It is stated that Alternative 2 is “environmentally inferior” to the Proposed Project because it would result in the greatest amount of water supply uncertainty and agricultural land losses due to restrictions on the total amount of water to be exported from the Delta. The cited impacts are not “environmental impacts”. Also, this fails to account for benefits to the Delta ecosystem resulting from reduced exports. LO219-29
- It is also argued that Alternative 2 would result in the greatest amount of “water supply uncertainty”. This statement is not necessarily true, since certainty will depend on the clarity of Delta flow objectives and their implementation. LO219-30
- Pg ES-9: It is alleged that Alternative 2 would result in the “loss of agricultural land”, and that agricultural land is an environmental resource under CEQA. A reduction of Delta exports and reduced water supply to an area does not impact the existence or future use of the land that might have received that supply. It may change cropping patterns or economic viability of specific parcels of the land, but does not cause environmental harm to the land itself. LO219-31
- It is alleged that Alternative 2 would result in fewer redundancies in the water supply system. What is the evidentiary basis for this statement? This statement presumes that Delta supplies are the only source of redundancy, which is not the case. Delta supplies may currently be the most economical source of such redundancy, which may have limited exploration of other sources. LO219-32
- Table ES-1, Summary of Impacts and Mitigation Measures for Proposed Project: The table only addresses short term water quality impacts associated with construction. The table mentions that the Proposed Project could “require or result in” the construction and operation of new or expanded water, wastewater and storm water treatment system. The table fails to address the long-term significant impacts from operation of such systems or to include mitigation measures for the impacts of such projects. LO219-33

Project Description:

- Page 2A-4: The Proposed Project is the Delta Plan, as described in the Fifth Staff Draft Delta Plan published August 2, 2011. That draft “staff” document will be revised in the future. The Plan ultimately will function as a strategic document which provides guidance and LO219-34

Response to comment LO219-27

Please refer to Master Response 3.

Response to comment LO219-28

The range of alternatives analyzed in the EIR is a reasonable range of alternatives based on thorough consideration of public input and the requirements of CEQA, all as described in Subsections 2.3.1.4 through 2.3.1.6 of the DEIR. An additional, sixth alternative, the Revised Project, was analyzed in the RDEIR. The selection of alternatives was informed by comments to the Delta Stewardship Council from agencies, organizations and the public. Alternative 2 does not represent one specific proposal. While there may be additional alternatives, the range analyzed in this EIR is reasonable. Please refer to Master Responses 2 and 3.

Response to comment LO219-29

The EIR addresses the significant effects on the environment of implementation of the proposed Delta Plan and the alternatives. As defined by CEQA, a significant effect on the environment (significant impact) is a substantial adverse *change* in the physical conditions within the area affected by the project (CEQA Guidelines § 15382). The benefits of a proposed project are taken into account in the statement of overriding considerations, which is adopted if a project is approved notwithstanding significant impacts that cannot be feasibly mitigated (Public Resources Code § 21081(b)). Please refer to Master Response 2.

Response to comment LO219-30

Of the range of alternatives considered in the EIR, Alternative 2 would include the most aggressive approach to water quality and to flow objectives and criteria, which would increase Delta flows and Delta outflow, and the most aggressive approach to reducing reliance on the Delta for areas located outside of the Delta that use Delta water diverted from the Delta by sharply decreased water exports from the Delta and its watershed to areas that receive Delta water (limited to a maximum of 3 million acre-feet/year). In addition, Alternative 2 would increase water supply uncertainty because it involves fewer surface water storage projects, such as reservoirs.

Response to comment LO219-31

The majority of the loss of agricultural land that would occur under Alternative 2 would occur due to the implementation of a reservoir in the Tulare Lake bed, as described in Section 7 of the EIR.

Response to comment LO219-32

Alternative 2 would result in the greatest reduction in the availability of Delta water supplies compared to the other alternatives evaluated in the EIR. Use of local and regional water supplies, water use efficiency and conservation, and ocean desalination are assumed to occur in all of the alternatives, including Alternative 2. Therefore, the potential array of water supply options is less in Alternative 2 than the other alternatives because of the large reduction in Delta supplies.

Response to comment LO219-33

As described in EIR Section 3, Impact 3-1a describes the impacts of both project construction and project operation (see pages 3-78 and 3-79). Mitigation Measure 3-1 primarily addresses measures to reduce potential impacts associated with construction. Section 3 (page 3-93) concludes that the effects of project operation would remain significant.

Response to comment LO219-34

Please refer to response to comment LO219-8 and Master Response 1.

Attachment One: SRCSD Specific Comments by Section and Page Number

recommendations to local, state and federal agencies to (1) restore the Delta ecosystem and (2) provide a more reliable water supply for California. The Delta Stewardship Council does not exercise direct review and approval authority over covered actions to determine consistency with the policies in the Delta Plan. The Council will hear appeals regarding consistency determinations and may, through its findings, cause parties to submit revised certifications of consistency with the Delta Plan, which can again be appealed. For the purpose of the Draft EIR, general types of projects and facilities are considered possible outcomes of the implementation of the policies and recommendations in the Delta Plan. The nature and uncertainty of the "Proposed Project" raises questions whether the project is adequately described to satisfy CEQA requirements. The Draft EIR should directly address this question.

LO219-34

- Page 2A-22: Possible recycled wastewater projects encouraged by the Delta Plan may include modification of existing wastewater treatment plants to add filtration, membrane filtration, reverse osmosis, and/or disinfection. Membrane treatment and reverse osmosis are not commonly applied in recycled water projects based on the exorbitant capital and energy costs associated with such levels of treatment. The Delta Plan must identify the significant environmental impacts and energy requirements of such extreme levels of treatment to avoid reckless encouragement of financially infeasible and environmentally undesirable wastewater treatment options.

LO219-35

- Page 2A-26: The Proposed Project will encourage the management of "stressors". DFG Draft Conservation Strategy for Restoration of the Sacramento-San Joaquin Delta Ecological Management Zone and the Sacramento-San Joaquin Valley Regions identified "water intake/diversion structures, physical barriers, nonnative invasive species and poor water quality" as the primary stressors in the Delta Ecological Management Zone. This list is missing the direct and indirect impacts of the operation of the State and federal water projects, including entrainment associated with Delta exports, modified hydrology and residence times in the Delta ecosystem, food web impacts, etc. DFG repeatedly does endorse the adoption and implementation of updated flow objectives for the Delta by June, 2014.

LO219-36

- Pg 2A-36 The Draft EIR states "The types of projects to reduce stressors can best be seen by looking at the recommendations in the Conservation Strategy for Restoration of the Sacramento-San Joaquin Delta Ecological Management Zone and the Sacramento-San Joaquin Valley Regions." The word draft was left off this statement. This is still a draft document – the District and other parties provide detailed comments on that document. DFG is still in the process of reviewing those comments and making changes to the final document.

LO219-37

- Pg 2A-41: The Draft EIR incorrectly states that current Central Valley Regional Water Board policies and plans do not include strategies to effectively protect drinking water. In fact, the results of the technical investigations by the Drinking Water Quality Work Group indicate that drinking water uses are being effectively protected in the Delta based on an assessment of current ambient levels of organic carbon, pathogens and salts. The Draft EIR also incorrectly identifies the date of initiation of the Drinking Water Quality Work Group process as 2008. In fact, the

LO219-38

Response to comment LO219-35

Impacts associated with implementation of local and regional projects to improve the reliability of water supplies that would be encouraged by the Delta Plan are evaluated in Sections 3 through 24 of the EIR, including energy use in Section 24.

Response to comment LO219-36

The sentence referred to in this comment on page 2A-26 of the DEIR provides a description of the stressors considered by the Department of Fish and Game *Draft Conservation Strategy for Restoration of the Sacramento-San Joaquin Delta Ecological Management Zone and the Sacramento and San Joaquin Valley Regions* (DFG 2011, pp. 49–66). Impacts on aquatic resources associated with implementation of these actions related are described in Section 4 of the EIR.

Response to comment LO219-37

The reference "(DFG 2011)" included on page 2A-36, Line 33, of the DEIR indicates that the study is the DFG Draft Conservation Strategy for Restoration of the Sacramento-San Joaquin Delta Ecological Management Zone and the Sacramento and San Joaquin Valley Regions.

Response to comment LO219-38

In response to this comment, please see text change(s) in Section 5 in this FEIR.

Attachment One: SRCSD Specific Comments by Section and Page Number

process began in 2002. Finally, the 2010 resolution referenced in the Draft EIR was not describing a new process; it referred to actions and deadlines to develop a Drinking Water Policy that were associated with the Work Group process initiated in 2002.

- Page 2A-44: The Draft EIR implies that inadequate wastewater treatment is causing contamination of surface water and/or ground water in many areas of the Central Valley. This implication is unsupported and inaccurate. The Draft EIR also states that wastewater treatment "could improve drinking water and environmental quality". This generalized statement is not supported by the findings of the Drinking Water Work Group or by other specific references. A technical report prepared for the Drinking Water Work Group (West Yost, 2011) provides a current assessment of loadings from existing and planned wastewater treatment plants in the Central Valley that shows that future wastewater treatment plant loadings of organic carbon and nitrogen compounds will be less than current loadings, despite population growth. This report should be reviewed and cited in the Draft EIR.
- Pg 2A-67: The Draft EIR states that, under the No Project alternative, conditions related to a variety of factors, including water quality, would "continue to degrade." The Draft EIR should provide citations to the ambient data analysis that was used as the basis for this statement. Specific water quality parameters should be referenced, as many parameters are in fact improving in recent decades.

Biological Resources

- Pg 4-1: "The Delta Plan... seeks to influence, either through limited policy regulation or through recommendations, other agencies to take certain actions that will lead to achieving the dual goals of Delta ecosystem protection and water supply reliability. Project may include...wastewater treatment plants..." A complete analysis of the operational impacts of those projects should be addressed in the Draft EIR.
- Pg 4-7: The Draft EIR correctly states that two clam species from Asia currently dominate the benthos of Suisun Marsh and the Delta and alter habitat suitability, consume vast volumes of primary and secondary producers, and alter species composition and the food web structure, cited Lund et al, 2007, (pg 71). The Draft EIR should acknowledge that these observed significant impacts in Suisun Bay create a limit on the effect that ammonium or other stressors may have in Suisun Bay.
- Pg 4-7: Under the title "Altered Flow Regimes", the Draft EIR states that "net flows in the southern Delta have strong north-to-south directionality (toward the CVP and SWP South Delta export pumps..." The Draft EIR also states that "current flow conditions favor resident freshwater invasive organism such as largemouth bass and Brazilian waterweed, cited in Moyle et al, 2010b (pg. 14). The Draft EIR should explain whether the future Delta Plan will remedy these significant effects, which may significantly impact the realization of the co-equal goal of ecosystem protection.

LO219-38

LO219-39

LO219-40

LO219-41

LO219-42

LO219-43

Response to comment LO219-39

Comment noted; the requested change would not affect the evaluation of impacts and determination of significance.

Response to comment LO219-40

Existing water quality conditions are described in Section 3.3 of the EIR. It is assumed that no additional facilities or changes would occur under the No Project Alternative compared to the existing conditions and that the water quality degradation would continue.

Response to comment LO219-41

The impacts of construction and operation of wastewater treatment plants, which are one of the types of Water Quality Improvement Projects that would be encouraged by the Delta Plan as described in subsection 2.2.3.1.4 of the DEIR, are analyzed in each resource section of this EIR and feasible mitigation measures are identified.

Response to comment LO219-42

Comment noted; the requested change would not affect the evaluation of impacts and determination of significance.

Response to comment LO219-43

The Final Draft Delta Plan includes policy ER P5, which states: "The potential for new introductions of, or improved habitat conditions for, nonnative invasive species must be fully considered and avoided or mitigated in a way that appropriately protects the ecosystem. This policy covers a proposed action that has the reasonable probability of introducing, or improving habitat conditions for, nonnative invasive species." The impacts of the proposed Delta Plan related to invasive species are discussed in Section 4 of the EIR.

Attachment One: SRCSD Specific Comments by Section and Page Number

- Pg 4-8: The Draft EIR states that "...large numbers of fish are lost to the CVP and SWP water export facilities located in the South Delta..." as a result of the "...entrainment effects caused by the Banks and Jones pumping plants." The Draft EIR notes that the 110 million fish that were salvaged over a 15-year period "...greatly underestimates the actual number of fish entrained." The Draft EIR notes that "diversions may also create conditions that increase the risk of predation by trapping fish in diversion forebays." The Draft EIR should reference the findings of studies by Castillo et al. (2011) and Kimmerer (2011) which confirm that pre-screen predation greatly outweighs the fish lost at the screening facilities and in the salvage operations.² LO219-44
- Pg 4-8: The Draft EIR states that the CVP and SWP water export facilities and other diversions export phytoplankton, zooplankton, nutrients and organic material that would otherwise contribute to supporting the base of the food web in the Delta, citing Jassby and Cloern, 2000 (pg 348). The Draft EIR must attempt to evaluate the significance of these effects, since these indirect effects on the Delta ecosystem will persist under the Delta Plan. LO219-45
- Pg 4-9: The generalized statement is made that contaminants have been identified as "an important driver of declines in ecosystem function in the current Delta and Suisun Marsh", without a citation to the reference for this statement. This statement should be modified to indicate that contaminants have been identified as one of a number of stressors that may be impacting the Delta ecosystem, but that the importance to ecosystem function has not been established. LO219-46
- Pg-4-16: In the listing of "primary" threats to delta smelt, the Draft EIR includes stressors with known impacts (habitat loss, entrainment in South Delta export facilities) in combination with stressors with potential impacts (toxic chemicals). The distinction between observed and potential impacts should be clarified in the Draft EIR. LO219-47
- Page 4-72: The Draft EIR describes numerous actions and projects that "could improve water quality", which may include "implementation of plans/programs that lead to reduced constituents from agricultural runoff and wastewater treatment plants". The reduction in constituent loadings over and above current permitted loadings will not, in and of itself, necessarily result in (a) significant changes in ambient water quality, (b) improved protection of ecosystem health, (c) improved protection of beneficial uses, or (d) net environmental benefit, when the environmental impact of new or increased treatment is considered in comparison to the benefit of a reduction in loadings. The Draft EIR fails to acknowledge these facts in its analysis of the environmental impacts of the various actions and projects that the Delta Plan seeks to encourage. LO219-48
- Page 4-73: The Draft EIR states that the projects encouraged by the Proposed Project (e.g. construction of new wastewater treatment plants) could result in substantial adverse effects that LO219-49

² Castillo, G., J. Morinaka, J. Lindberg, R. Fujimara, B. Baskerville-Bridges, J. Hobbs, G. Tigan, and L. Ellison (in review). Pre-screen Loss and Fish Facility Efficiency for Delta Smelt at the South Delta's State Water Project, California. 2011. Manuscript submitted to San Francisco Estuary & Watershed Science. Kimmerer, W.J. (2011) Modeling Delta Smelt Losses at the South Delta Export Facilities. San Francisco Estuary & Watershed Science, Vol. 9, Issue 1. April 2011.

Response to comment LO219-44

The impacts of predation are analyzed at a program level in Section 4 of the EIR. Please see response to comment LO219-8.

Response to comment LO219-45

The comment refers to existing conditions, not to the potential significant environmental effects of the proposed Delta Plan. Please refer to LO219-13.

Response to comment LO219-46

Comment noted; the requested change would not affect the evaluation of impacts and determination of significance. While it is true that much more is known about the impacts of habitat loss and entrainment than is known about the effects of toxic chemicals, the USFWS identifies contaminants as one of the factors affecting Delta smelt. Other factors identified include water diversions and reservoir operations, changes in the Delta food web, microcystis, climate change, and "other stressors" such as aquatic macrophytes, predators, and competition (USFWS 2008).

Response to comment LO219-47

Please refer to response to comment LO219-46.

Response to comment LO219-48

Please refer to response to comments LO219-8. As described in Section 4.3.2.1.8 of the DPEIR, contaminants have been identified as an important driver of declines in ecosystem function in the current Delta and Suisun Marsh. An unknown number of chemicals are introduced into the Delta from a variety of sources. These include point sources such as effluents from municipal and industrial wastewater treatment plants as well as urban, agricultural, and industrial nonpoint sources. Proposed actions to reduce contaminant loading contained in the Delta Plan could improve water quality for beneficial uses.

Response to comment LO219-49

Please refer to response to comment LO219-41.

Attachment One: SRCSD Specific Comments by Section and Page Number

are considered to be significant. However, the Draft EIR fails to describe mitigation to be performed by the proponents of the Proposed Project to offset these significant impacts. Such mitigation must be described in the EIR.

- Page 4-74: The Draft EIR states that operation of facilities intended to improve water quality including discharges from wastewater treatment plants and the discharge of brine waste is not expected to produce significant impacts, since such discharges will be regulated by the State and Regional Water Boards. The Draft EIR fails to address the significant operational impacts associated with greenhouse gas emissions, power use, and chemical use associated with the use of membrane treatment in Central Valley wastewater treatment plants. The Draft EIR also seeks to transfer the responsibility for mitigation of the adverse environmental impacts of membrane treatment to local communities rather than taking responsibility for such mitigation as the project proponent.
- Page 4-82: The Draft EIR specifies that any covered action that would have one or more of the significant environmental impacts listed in Section 4 of the Draft EIR “shall incorporate” mitigation measures as described in Section 4.4.3.6 of the Draft EIR. This statement appears to seek to transfer responsibility for any projects encouraged by the Proposed Project to local communities without justification, including any showing that such projects are reasonable, cost-effective, or otherwise create a net environmental benefit.

BDCP

The Draft EIR needs to clarify, through direct statements, that the certification of the Delta Plan EIR will in no way override, negate or otherwise influence the process for review and approval for the BDCP or the BDCP EIR.

Appendix D – Regulatory Framework

Footnote f in Table D-1 implies that 0.06 ng/l MeHg has been adopted as an enforceable objective in the Delta Mercury TMDL Basin Plan amendment. This statement is inaccurate and the table should be modified to clarify that this value is not an adopted water quality objective.

LO219-49

LO219-50

LO219-51

LO219-52

LO219-53

Response to comment LO219-50

Mitigation measures that could be adopted in implemented as part of future projects are identified in Sections 3 through 21 of the EIR. However, without specific details of future projects, it is not possible to develop quantitative thresholds of significance and specific mitigation measures to be implemented by other agencies, as explained in response to comment LO219-8. Impacts associated with greenhouse gas emissions, energy, and cumulative impacts are addressed in Sections 21, 24, and 22, respectively.

Response to comment LO219-51

Please refer to Master Response 4. Only the lead agency and responsible agencies for future projects will have the authority to adopt mitigation measures.

Response to comment LO219-52

Please refer to Master Response 1.

Response to comment LO219-53

Table D-1 of the EIR has been updated.

Attachment Two “Technical Memorandum: Analysis of Costs and Benefits of Advanced Treatment Alternatives for the Sacramento Regional Wastewater Treatment Plant (2010)”

POTENTIAL ENVIRONMENTAL IMPACTS OF ADVANCED TREATMENT

While the five advanced treatment alternatives would reduce the concentrations of various constituents in SRWTP effluent below those concentrations achieved with existing secondary treatment processes, advanced wastewater treatment processes would also produce environmental impacts in the forms of increased power consumption, associated increases in greenhouse gas emissions, and “cross media impacts” for those treatment trains that include microfiltration, nitrification/denitrification, and reverse osmosis (RO). Cross media impacts is a term that refers to the interrelated impacts caused by removal of a constituent from one medium and its transfer to one or more other media. In the case of RO, the process removes a constituent at a certain concentration from wastewater and partitions it at a significantly higher concentration in brine and/or residuals. Certain constituents, such as metals, are not destroyed, but transferred from one medium to another. Organic constituents can be destroyed or converted to other toxic or non-toxic forms and can also be transferred from one medium to another. It should be noted that in transferring from one medium to another, the concentration and/or bioavailability of the constituent may be changed significantly. Microfiltration and RO treatment result in the transfer of constituents from wastewater into biosolids, air, and/or concentrated waste streams.

Nitrification/denitrification processes result in the transfer of constituents from wastewater into biosolids. Depending on regulatory limits, additional treatment of the biosolids, air, and/or concentrated waste streams may be required (Carollo, 2005). With the exception of brine crystallization and disposal, the costs associated with this additional treatment, if required, are not included in the cost estimates provided in Table ES-5. Potential environmental impacts associated with the advanced treatment processes included among the five treatment train alternatives evaluated by SRCSD are presented in Table ES-8.

No comments

- n/a -

No comments

- n/a -

Table ES-8: Potential Environmental Impacts associated with the Advanced Treatment Processes included among the Treatment Trains Alternatives evaluated by SRCSD.

Potential Environmental Impacts	Advanced Treatment Processes					
	Microfiltration	UV Disinfection	Nitrifying Tricking Filters	Fluidized Bed Reactors	Reverse Osmosis	Ozone/Peroxide Oxidation
Substantial power requirements and associated increase in greenhouse gas emissions	Train A Train C Train D Train E	Train A Train C	Train B Train C	Train B Train C	Train D Train E	Train D Train E
Cross media contamination	Train A Train C Train D Train E	---	Train B Train C	Train B Train C	Train D Train E	---
Potential need for additional treatment of biosolids to remove contaminants prior to disposal	Train A Train C Train D Train E	---	Train B Train C	Train B Train C	---	---
Potential need for additional treatment of brine waste to remove contaminants prior to crystallization and disposal	---	---	---	---	Train D Train E	---
Increase in greenhouse gas emissions from truck and rail traffic used to dispose of crystallized brine waste	---	---	---	---	Train D Train E	---

Although the quantification and cost valuation of all potential environmental impacts shown in Table ES-8 fall outside of the scope of the current analysis, it is possible to estimate greenhouse gas emissions increases due to increased electricity consumption at SRWTP with implementation of the advanced treatment train alternatives. Treatment trains that include energy-demanding processes such as MF, RO, UV disinfection, and ozone/peroxide oxidation will result in the emission of more metric tons of CO₂ than treatment trains featuring less energy-demanding processes such as nitrifying trickling filters, fluidized bed reactors, and chlorine disinfection. SRCSD estimated greenhouse gas emissions at SRWTP due to electricity consumption by existing secondary treatment processes alone and in combination with the advanced treatment train alternatives and found that nutrient removal afforded by Treatment Train B would result in an estimated 20% increase in annual CO₂ emissions above that estimated for existing SRWTP secondary treatment processes at 218 mgd ADWF, while complete MF/RO/ozone peroxide treatment of the SRWTP's entire flow (Treatment Train E) would increase annual CO₂ emissions by 596%.

The ultimate selection of an advanced treatment train alternative would require a consideration of the cumulative environmental impacts collectively associated with any given advanced treatment scenario.

CONCLUSIONS

On balance, the minor reductions in downstream receiving water constituent concentrations as a result of implementation of the advanced treatment train alternatives are not commensurate with the proportionately high total annual costs of implementation of advanced treatment (\$83 – \$383 million; see **Table ES-5**) and associated increases in monthly residential sewer fees (\$15.25 – \$59.75; see **Table ES-6**) and new development impact fees (\$8,950 – \$41,550; see **Table ES-7**). While the monetary costs of advanced treatment implementation have been estimated, the associated environmental impacts of advanced treatment due to increased power consumption and cross media impacts must also be considered when evaluating the overall impact of advanced treatment implementation at SRWTP. The operation of each advanced treatment train would increase electricity consumption, and thus greenhouse gas emissions above those generated by existing SRWTP secondary treatment processes. While not quantified in detail in this analysis, these environmental impacts must be considered as costs associated with advanced treatment, and would only act to increase those monetary costs of advanced treatment estimated in this analysis.

In summary, the high costs associated with the implementation of advanced treatment of SRWTP secondary treated effluent discharged at the proposed permitted condition (218 mgd ADWF) are disproportionate to the water quality benefits that may be observed in downstream receiving waters with implementation of advanced treatment.

No comments

- n/a -