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Thank you for the opportunity to review and comment on the Delta Stewardship Council's (DSC) Final Draft Delta Plan (Plan) as released November 30, 2012. The Tuolumne Utilities District is an interested party to this process. The Tuolumne Utilities District supplies water to 44,000 customers within the County of Tuolumne. We have previously participated in the DSC process through the review of earlier draft documents, draft plans as well as DSC meetings and workshops. Additionally, our agency was a participant in the Ag-Urban Coalition and worked in the development of that group's Alternate Draft Plan as submitted to the DSC previously. We most recently had submitted written comments on the 6th Draft (staff) Plan and the Offices of John S. Mills provided oral testimony to the Council on our behalf.

As we noted regarding the earlier 6th Staff Draft Plan, the latest version of the Plan is a significant improvement over the earlier drafts. We continue to hold concerns regarding some aspects of the Plan that we will outline in this letter. Nonetheless we believe that the Final Draft Plan, with some modifications, charts a course that will support the Council's difficult task of meeting the coequal goals as called for in the Delta Reform Act. All of our proposed changes are introduced with a **bold** font and appear as strikeout (remove) and underline (new) format.

Our concerns can generally be categorized as falling within the following broad categories:

- Funding Principles to Support the Coequal Goals
- Improving Regional Self-Reliance
- Efficient Use of Water Resources
- Urban Water Management Planning
- Informed Decision Making Requires Information
- Reasonable Use of Water & Water Supply Reliability Element
- Protect, Restore, and Enhance the Delta Ecosystem

Funding Principles to Support the Coequal Goals (Chapter 8)

We agree with the Plan's conclusion that the Delta Reform Act does not require the development of a financing plan to implement the Delta Plan. However, the Council has gone on record as having affirmed the need for such a financing plan and is committed to the development of a financing plan. We also agree with the conclusion in the Plan that *"...a comprehensive and supportable Delta Finance Plan will take time to develop."*[1]

We urge the DSC to consider the implications in development of a funding source that incorporates both beneficiary fees as well as stressor fees over the broad landscape of California. There are significant differences within this state regarding benefits directly received from the Delta (or lack thereof), as well as degree or even any stress placed on the Delta by resource utilization. The development of such a finance arrangement will not only require extensive information gathering, but it will also require evidence of clear path of investment to achieve the accomplishment of the coequal goals.

At a systemic level, there must be an understanding by the DSC, and reflected in any funding principles, that the Delta and Delta's ecosystem, are but a part of this state's tapestry of other ecosystems that are just as much in need of investment. We therefore again point to the nexus between the upstream Sierra Nevada Ecosystem, and the Delta. Throughout the Delta Plan there is some recognition of the importance of upstream watersheds, water storage, water management and the largest single reservoir in the State - the Sierra Nevada snowpack. The ongoing management of those upstream resources cannot continue absent significant investment from those downstream parties who benefit from the stewardship management of upstream forests, watersheds and systems that supply the Delta with water.

We draw your attention to the conclusion in the Plan that *"...the BDCP estimates that 3.6 billion total plus $46 million annually will be required for Delta ecosystem restoration (BDCP Steering Committee 2010).*[2] We agree with the DSC's conclusion that potential future funding sources for the BDCP will compete with funding for other activities. Be assured that investments in the Delta and its ecosystem will be examined in the proposed funding principles, to assure that commensurate funding for the equally important Sierra Nevada Ecosystem and its watersheds is not overlooked. We believe that the DSC's Chief Scientist and the DSC's Independent Science Board should be asked to

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[1] Final Draft Delta Plan, Chapter 8, page 304, line 2

[2] Final Draft Delta Plan, Chapter 8, page 306, lines 10-11

address this issue strictly on a scientific basis in collaboration with the Sierra Nevada Institute (U.C. Merced) and the United States Forest Service.

Rather than speculate at this time on what user fees may be and who would or would not pay, and how much each interest segment of society may pay, we suggest that the DSC consider our comments above. Additionally, we will be happy to provide support in any stakeholder process to develop the Delta Finance Plan over the coming time period for Near Term Actions.[3]

Improving Regional Self-Reliance (Chapter 3)

The second sentence in California Water Code §85021, states:

> *"Each region that depends on water from the Delta watershed shall improve its regional self-reliance for water through investment in water use efficiency, water recycling, advanced water technologies, local and regional water supply projects, and improved regional coordination of local and regional water supply efforts."*

It is clear that 85021's intent is that areas that depend upon water from the Delta watershed will improve in the efficient use of water through a number of actions. This would include those users of water from the Delta watershed that are located within the watershed as well as those located downstream or in export areas that use water from the Delta watershed.

This is captured within the Plan regarding a 2100 "view" of the future wherein, *"California's water supply will be considerably more efficient…Regions reliant on receiving some portion of their water from the Delta watershed will have reduced their reliance and improved regional self-reliance through increased conservation and diversification of their local and regional sources of supply."*[4]

This is further amplified within the context of achieving the goal of providing a more reliable water supply for California within the narrative of Chapter 3 (page 72). However, it must be noted that some generalities within the Plan will not translate into equal levels of success. All water supplies are local. That is, a "statewide" improvement in water supply does not equate to an improved water supply in each individual agency's service area. Statewide investments intended to improve water supplies must

[3] Final Draft Delta Plan, Chapter 8, page 310, Figure 8-1

[4] Final Draft Delta Plan, Chapter 1, page 25, Lines 10-15

be tailored to suit the specific regional and local needs. Flexibility in investment strategies to achieve regional self-reliance will be critical.

We therefore recommend that an additional bullet be added to page 73 of Chapter 3 that further clarifies the need for diverse strategies, expanded water portfolios and opportunities for multiple resource benefits:

- The State Water Plan identifies various Resource Management Strategies for application throughout the diverse regions of the State. *"Resource managers can mix and match these strategies into a response package, crafting them to provide multiple water resource benefits, diversify their water portfolio and become more regionally self-sufficient."*[5]

It is evident that several of the types of State Resource Management Strategies (California Water Plan Update 2009, Vol. 2) identified in this portion of section 85021 – especially, "local and regional water supply projects" and "improved regional coordination of local and regional water supply efforts" – could result in increased water use within the Delta watershed. This is anticipated in the Delta Reform Act sections 85031(a) – which protects area-of-origin rights in the watershed – and 85302(i) – which states that nothing in the Act affects "any water right."

Appendix P's pages P1 through P4 provide critical information and a perspective for meeting the objectives of reducing reliance on the Delta and improving regional self-reliance that should be referred to more frequently within Chapter 3 of the Plan. The details of how the efficient use of water resources can be accomplished, as detailed in Appendix P of the Plan, are of significant importance in advancing the intentions of CWC §85021 throughout the Plan.

We request that appropriate references to Appendix P of the Plan be made in all policies and recommendations relative to the efficient use of water resources in Chapter 3.

We request that "Area for Future Evaluation and Coordination" (Chapter 3 page 116) be changed. Second bullet changed as follows:

Line 18- 23, "...on the Delta and improve regional self-reliance should be reported (1) in urban and agricultural water management plans, (2) ~~in integrated regional water management plans; and~~ in the California Water Plan. Potential additional measures should be identified and evaluated that will benefit the amount of water, quality of

[5] California State Water Plan, Bulletin 160-09, Volume 2

water, and timing of flows in and through the Delta and contribute to reduced reliance on the Delta and improving regional self-reliance consistent with Water Code section 85021. Additional measures should include actions that improve the overall efficient use of water throughout the hydrologic cycle so as to provide for a sustainable statewide efficient use of water resources."

Line 31-37, "The value of integrated regional water management planning is widely recognized, but information on how to more efficiently implement effective integrated water management projects is not well understood. The number of ~~conjunctive management programs~~ integrated resources management programs and projects that improve the efficient use of water resources must be better understood and expanded. These efforts must include large-scale watershed and forest health projects, green urban design, flood control, stormwater infiltration, water conservation, recycled water, and groundwater management. ~~are increasing.~~ Information about the successful integration of natural and man-made water resources infrastructure needs to be shared and consideration must be given to more effectively promote implementation of these integrated strategies.

The Plan effectively captures examples of "Regional Success Stories" (Chapter 3, page 102) from regions in multiple geographic locations. We request you make one addition to the first paragraph in that section.

Examples of successful strategies to reduce reliance on the Delta and improve regional self-reliance ~~follow~~ are described below and are each consistent with the Delta Plan.

The Efficient Use of Water Resources (Chapter 3)

The Plan recognizes the role of existing opportunities to improve the efficient use of water through traditional end-user water conservation measures. It also similarly notes the role of agricultural water use efficiency practices. However, to ultimately be successful in achieving the coequal goals the Delta Plan must expand its vision of "New Water for California" and "California's Wealth of Water Opportunities."[6] The description of new potential water supplies places an appropriate emphasis on improved conservation and water use efficiency in the urban and agricultural sectors. However, the significant influence the upstream watersheds within the Sierra Nevada Ecosystem have in capturing, storing, filtering and delivering fresh water into the Delta Ecosystem as a way to improve the efficient use of water throughout the hydrologic cycle is not presented adequately within the Plan.

[6] Final Draft Delta Plan, Chapter 3, page 98

A key component of the efficient use of water resources is how the landscape influences the water resources that fall as precipitation on the upstream watersheds. The mixed-conifer forest in the elevation range of 5,000 to 12,000 ft. above sea level on the west slope of the Sierras is an essential foundational element of much of the Delta's water supply. *"About two thirds of the precipitation that falls on the Sierra Nevada is evaporated or transpired by vegetation and one third runs out of the region in streams and rivers. Upstream management of Sierra Nevada forests can significantly increase the value of downstream water resources by shifting the water towards higher value uses and optimizing the timing of runoff."*[7]

To achieve what the Plan calls "New Water for California" in pursuit of the coequal goals, it will be essential that the scope of the Plan go beyond the usual parameters that constrained earlier suboptimal quests for the elusive Delta solution. In short, all feasible tools to improve the efficient use of water throughout the hydrologic cycle must be in the Council's portfolio, not the least of which is the Sierra Nevada Ecosystem.

We encourage the Council to expand the parameters of the efficient use of water to include an examination of what can be done to improve the sustainable water yield of the forests of the Sierra Nevada mountain range. Preliminary estimates based on average climate information suggest that in the Sierra Nevada, treatments that would reduce forest cover by 40% could increase water yield by about 9%. Sustained, extensive treatments in dense (overstocked) Sierra Nevada forests could increase water yield by up to 16%.[8]

Actions taken to improve the function of the State's natural and man-made water system must recognize the value in improving the water yield in watersheds upstream of the Delta. *"Even small increases in water yield or improvements in the timing of water flow in the large area of mixed-conifer forests are important because of the high value of water used by both hydroelectric facilities and downstream users."*[9]

The influence of climate change will be an additional stress placed on California's water resources irrespective of beneficial use category. Losses in snowpack are estimated to decline by approximately 25% by 2050. Increased temperatures will also lead to more precipitation falling as rain and an earlier snowmelt.

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[7] Forests and Water in the Sierra Nevada: Sierra Nevada Watershed Ecosystem Enhancement Project, November 2011. Sierra Nevada Research Institute, UC Merced, Center for Forestry, UC Berkeley & Environmental Defense Fund, Roger C. Bales, John J. Battles, Yihsu Chen, Martha H. Conklin, Eric Hoist, Kevin L. O'Hara, Philip Saksa & William Stewart

[8] IBID

[9] IBID

One of the avenues open to the Council in pursuit of the coequal goals is to use their position as a convener and facilitator to create a forum to encourage, implement and evaluate the positive influences of the efficient use of water within our forests by restoring forest vegetation conditions to a more sustainable, historic composition and density.

The Council, their staff, the Sierra Nevada Institute and interested stakeholders, should be convened by the DSC to work through many of the details of such a course of action. We urge the Council to direct its staff and Chief Scientist to work directly with such a group as one of the early implementation actions. We stand ready to provide the council with support for such an effort. Please see our recommendation later on in this letter to include a new ER R8 within the Plan.

We request that you modify WR R18 (Chapter 3, page 113 & 114) so that it is more consistent with current State Water Plan processes as well as captures the broader opportunities available for the efficient use of water, as follows:

The Department of Water Resources, in consultation with DWR's State Agency Steering Committee ~~the State Water Resources Control Board~~ the State Water Plan Public Advisory Committee, and other stakeholders, ~~other agencies~~ should evaluate and include in ~~the next and all~~ future California Water Plan updates information needed to track water supply reliability performance measures, where applicable and identified in the Delta Plan, including an assessment of ~~water efficiency~~ the efficient use of water throughout the hydrologic cycle, ~~and~~ new water supply development, regional water balances, improvements in regional self-reliance, reduced reliance on the Delta, and reliability of Delta exports, ~~and~~ an overall assessment of progress in achieving the coequal goals and statewide progress in utilizing water more efficiently throughout the hydrologic cycle through the application of appropriate California Water Plan Resource Management Strategies and the Delta Plan, Appendix P.

We have concerns in WR R1 (Chapter 3, page 109) with the use of the phrases *"All water suppliers should fully implement applicable water efficiency and water management laws..."*. The term "fully implement" would mean to carry out these actions with no exceptions. This would prevent the management for locally cost effective, and affordable supplies by the local agency. In short, this wording could require local agencies to pursue management actions that could significantly harm their agency's ability to stay fiscally viable and supply affordable water to their customers. We do not believe this is the intent of the Council.

We recommend WR R1 be partially reworded to read, *"All urban water suppliers (CWC § 10617) should ~~fully~~ implement applicable water efficiency measures as*

provided in CWC §10631(g) and comply with water management laws ~~including urban water management plans (CWC section 10601 et seq.)~~…"

Urban Water Management Planning (Chapter 3)

We suggest that the Plan be updated with the most recent information from the Department of Water Resources (DWR) regarding Urban Water Management Planning Act compliance. The Plan contains information regarding the number of Urban Water Management Plans that have been submitted to the DWR, which is incorrect. Please see Chapter 3, page 101, lines 24-36. The statistics provided regarding those agencies that have completed plans and submitted them to DWR is more accurately described below:

"As of April 14, 2012, 381 urban water suppliers out of 448 urban water suppliers known to DWR have adopted UWMPs and submitted them to DWR. 297 suppliers submitted UWMPs by the legislative deadline of August 1, 2011. The remainder submitted plans between July 1 and April 12, 2012. Appendix B provides 3 tables listing wholesale suppliers, retail suppliers and suppliers known to DWR who have not yet submitted plans."[10]

The April 2012 report by the DWR to the Legislature indicates that approximately 85% of those agencies known to DWR to be required to prepare UWMPs have done so, and submitted them to DWR as of April 2012. It may reasonably be assumed that since that date more UWMPs have been completed. DWR should be able to provide an update to the April figure valid through 12/31/2012, by early next year.

As to the engagement of water suppliers in the efficient use of water, as is questioned in the Plan on page 101 of Chapter 3, there may be mitigating influences for why agencies do not aggressively deploy all water use efficiency measures. At least in some areas, during these times of constrained fiscal resources, even where some efficiency measures are locally cost effective, there still must be funds to pay for the actions. Cost effective is not the same as affordable to local agencies unable to increase revenues due to voter resistance and unable to pay for efficiency measures out of empty coffers.

The SWRCB is free to take up complaints filed on the basis for waste and unreasonable use at any time, except as noted in CWC §10608.8(a)(2) with respect to SBX 7-7. It is not prudent for the Council to encourage the SWRCB to use that authority in advance of the limits provided for in statute (January 2021). **We suggest the Council hold any such encouragement until DWR has analyzed the UWMP updates of 2015 and 2020**

[10] 2010 Urban Water Management Plans, A Report to the Legislature pursuant to Section 10644(b) of the California Water Code, Department of Water Resources, April 2012, pg. 7

regarding improved water use efficiency in compliance with the provisions of SBX 7-7. Until the degree compliance is quantified no action is needed by the Council.

Informed Decision Making Requires Information (Chapter 3)

One of the "key concerns" identified in this section is the absence of many groundwater withdrawals being monitored (page 106, lines 1-3). Please note that groundwater wells in many parts of rural Sierra areas are not metered. They supply water to individual homes, use a relatively small amount of water, and are the only reliable, affordable, available source of water to significant portions of rural populations. The wells are installed by the overlying landowner, owned by the landowner, maintained by the landowner, and used solely by that landowner for beneficial municipal and incidental agricultural purposes on the landowner's property. Furthermore, many of those wells are located on fractured granitic formations and are not part of any groundwater basin. Any evidence of overuse, or abuse of the groundwater sources in these areas is notably lacking. In short, there is no reason to impose additional costs on those landowners to meter their own wells, especially since the information in non-groundwater basins would be almost meaningless.

Within the same page, we suggest that there is a need for more detailed information on the relationship between land use and natural resources practices on west slope coniferous forests with regards to net water yield and timing of flows. We detailed earlier comments on this topic under our topic of "The Efficient Use of Water Resources." It is imperative that to carry out an effective and sustainable Delta ecosystem and water supply program the Council and its science panel come to grips with the relationship of upstream forest management actions on water timing of release, yield and quality. In short, if the Council and its scientists are lacking in an understanding of how the source watersheds function they will be frustrated in their attempts to restore downstream systems.

We recommend an additional bullet be added to the "Science and Information Needs" section of the Plan on Chapter 3, page 114, as follows:

- **<u>Improved models of watershed yield of Sierra watersheds, through collaborative work with the efforts of the Sierra Nevada Institute, U.C. Merced, U.C. Berkeley and Environmental Defense.</u>**

Determining the Reasonable Use of Water & Water Supply Reliability Elements (Chapter 3)

The Plan presents a recommendation that overreaches the Council's scope of responsibility, by intruding on the prerogatives of the State Water Resources Control Board to decide how to evaluate reasonableness of water use. This is the case in WR R3 which goes beyond simply encouraging the SWRCB to evaluate petitions and applications for reasonableness of use, by recommending how the Water Board should conduct its evaluation. We made this same suggested correction on the last draft of the Delta Plan.

We request that you modify WR R3 on page 109, lines 24-36 as shown below:

> **The State Water Resources Control Board should evaluate all applications and petitions for a new water right or a new or changed point of diversion, place of use, or purpose of use that would result in new or increased long-term average use of water from the Delta watershed for consistency with the constitutional principle of reasonable and beneficial use. ~~The State Board should conduct its evaluation consistent with Water Code sections 85021, 85023, 85031 and other provisions of California law. An applicant or petitioner should submit to the State Board sufficient information to support findings of consistency, including, as applicable, its Urban Water Management Plan, Agricultural Water Management Plan, and environmental documents prepared pursuant to CEQA.~~**

WR R4 Calls for the creation of a new "expanded water supply reliability element" as *"… part of the 2015 updates to agency Urban Water Management Plans, Agricultural Water Management Plan, Integrated Regional Water Management Plan or other plan…"*

It should be noted that with regards to the type of plan this element would be required to be included in, not all these types of plans are similar in content, scope, scale or purpose. Not every IRWM Plan for example may address water supply reliability, but instead may focus on other regional challenges such as water quality or watershed restoration. IRWM groups do not have the authority to impose a new water supply reliability standard on other agencies or interests that may, or may not, even be a participant in the IRWM program. IRWM efforts are voluntary programs.

Further, the Plan continues to make no distinction in the new plans (elements?) between those areas that receive no water from the Delta and those that do. For example, how

could an agency that receives no water from the Delta plan for an interruption of supplies from the Delta? Such a proposed standard is illogical, unpractical, and not implementable.

We request that you modify WR R4 as follows:

Water suppliers that receive water from the Delta watershed that is taken directly from the Delta or conveyed through the Delta should include an expanded water supply reliability element, starting in 2015, as part of the update of an urban or agricultural water management plan. ~~Integrated water management plan, or other plan that provides equivalent information about the suppliers planned investments in water conservation and water supply development.~~ The expanded water supply reliability element should detail how water suppliers are reducing reliance on the Delta and improving regional self-reliance on consistent with Water Code section 85021 through investments in local and regional programs and projects, and should document the expected outcome for a measureable reduction in reliance on the Delta and improvement in regional self-reliance. At a minimum, these plans should include a plan for possible interruption of ~~Delta water supplies~~ supplies that are taken directly from the Delta or conveyed through the Delta for a period of up to 36 months for any reason. The plan should also provide an evaluation of the regional water balance, a climate change vulnerability assessment, and an evaluation of the extent to which the supplier's rate structure promotes and sustains the efficient ~~water use~~ use of water resources throughout the hydrologic cycle. The plan should be consistent with Delta Plan Appendix P.

Please change WR R6 (page 110 lines 2-4) to provide for dates that correspond to the regular UWMP update (5-year cycle) as follows:

... recycled water, and stormwater goals by ~~2014~~ 2015. This group should evaluate and recommend updated goals for additional water efficiency and water resources development by ~~2018~~ 2020.

Please change WR R7 (page 110, line 9), so that the dates correspond to WR R5, as follows:

... should revise State grant and loan ranking criteria by December 31 20~~13~~14...

Please change WR R10 (page 111, line 9) to reflect the management and planning that can realistically be carried out in groundwater basins vs. those areas with either no groundwater basin, or those with fractured bedrock groundwater sources:

... percentage of their long-term average water supplies from groundwater basins ~~sources~~

Please change WR R17 (Page 113, line 38) so as to eliminate the term "full". A water supplier would either comply or not and the term "full" is both confusing and unnecessary.

"..."transfer water through, or use water in the Delta watershed should be ~~full~~ participants in the..."

Please note that the one of the recommendations for future actions (Delta Watermaster's Duties) is inconsistent with existing provisions in the law.

Chapter 3 page 117, suggests expansion of the scope of the Delta Watermaster's duties in contravention to Water Code section 85230 which states in part, *"The Delta Watermaster's authority shall be limited to diversions in the Delta, and for the monitoring and enforcement of the board's orders and license and permit terms and conditions that apply to conditions in the Delta."*

The legislature was explicit that the Delta Watermaster's duties *"shall be limited"* to the boundaries of the Delta. Any expansion of geographic scope must come from the legislature. Further, the Delta Watermaster surely ought to establish certainty of water diversions and use within the Delta through a written assessment detailing findings of specific water rights (place, amount, use, etc.) as well as specific illegal diversions and actions to cease the illegal diversions. Certainty of water use related to diversions in the Delta must be established in order to ultimately achieve the goal of reduced reliance on the Delta.

Protect, Restore, and Enhance the Delta Ecosystem (Chapter 4)

There is a significant inconsistency between WR R12 (Chapter 3 page 112, lines 9-11) and ER P1 (Chapter 4, page 155 & 156).

WR R12 recommends that the Bay Delta Conservation Plan (BDCP) be completed by 12/31/14. The BDCP is to include new and significant Delta diversions, restoration/mitigation actions and new export operations, that will in all probability alter import export ratios in the Delta, as well as flows within the Delta. The purpose of the BDCP is in essence to grant assurances to exporters of water from the Delta regarding their water supplies.

The SWRCB's Bay Delta Plan is intended to "*...identify beneficial uses of the Bay-Delta, water quality objectives for the reasonable protection of those beneficial uses, and a program of implementation for achieving the water quality objectives.*"[11]

It is not clear at this time what the actual projects are for the SWRCB's Plan or the BDCP's program. Since one of the objectives of either of those actions would be the use of the Delta to deliver water to the State and Federal Water Projects knowing the details is critical. At this juncture the Council cannot presume knowledge about proposals that are not yet completed and what each singly and combined they will have on the Council's ability to achieve the coequal goals.

A more reasonable approach for the Council to take regarding this measure would be to include encouragement to complete the BDCP <u>and then</u> urge the SWRCB to move ahead on the update to their Bay Delta Plan.

Instead, ER P1 sets a timetable for the SWRCB to establish flow objectives <u>in advance of the completion of the BDCP</u>. Such a schedule would have the SWRCB developing flows before they know what the final project from BDCP is going to be, how it may impact the other beneficial uses, how to protect them, and what objectives are needed to accomplish that effort.

It is one thing for the BDCP and the SWRCB to be out of step and inconsistent in scheduling, as well as the achievement of a sustainable Bay Delta. There is no reason for the Council to also promote schedules for the SWRCB to establish updated flow objectives (June 2, 2014) before the BDCP is even completed.

ER P1 as written would further confuse an already counter productive and confused Delta Planning environment. It should be re-written as follows:

<u>The SWRCB should update the Bay-Delta Water Quality Control Plan immediately following the completion of the Bay Delta Conservation Plan. Flow objectives to protect identified beneficial uses consistent with CWC §13000 et seq.</u>

<u>Flow objectives should be established and implemented consistent with the coequal goals. Until the SWRCB has completed the Water Quality Control Plan update, existing water rights flow requirements shall constitute compliance with the Delta Plan.</u>

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[11] SWRCB Supplemental Notice of Preparation (NOP) and Notice of Scoping Meeting for the Update and Implementation of the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary Bay Delta Plan Comprehensive Review, January 24, 2012

The opening sentence of Chapter 4 (page 129, line 1) is only partially correct. The presumption in that specific sentence is that a restored Delta ecosystem will assure Delta water supplies. There are, as the Delta Plan notes, other ecosystems within the State of California. Some of them not only influence the Delta ecosystem, but are essential to the existence of the Delta ecosystem. Perhaps the most important one of those is the Sierra Nevada Ecosystem.[12] The Final Draft Plan, earlier states the challenge correctly on page 73:

"The broad influence of the Delta is precisely why the Delta crisis cannot be resolved by taking actions in the Delta alone."

However, the Plan does not go on to capture the broader application of management actions that may be deployed to accomplish the coequal goals and resolve *"the Delta crisis."*

For the Delta ecosystem to be restored and sustained, there must be an accompanying recognition by the Council, their ISB and staff or the key interrelationship of the (upstream) Sierra Nevada Ecosystem, from which much of the Delta's water originates. Further, it will be necessary for the Council to go beyond just recognition. There must be a commensurate incorporation of actions to create a more historic watershed conditions within the Sierras that then produces the desired more natural flow conditions. Altered flows are identified by the Plan as a Delta ecosystem stressor.[13] However, the Plan mischaracterizes the alteration in the flows as being attributable only to dams and flood control structures. In point of fact, the current forest conditions in the Sierra Nevada ecosystem no longer reflect their historic condition. This change in the forest and the resulting diminishment in watershed flows is documented in the research being carried out by the Sierra Nevada Institute.[14] Restoration of the Delta ecosystem must go beyond the State's man-made infrastructure, and the statutory Delta. The scope of the task must include the natural infrastructure within the watersheds of the Sierras so as to be able to achieve a sustainable set of conditions needed to support the desired flows, that are created by historic forest cover conditions.

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[12] *Sierra Nevada Ecosystem Project, Final Report to Congress, vol. 1, Assessment Summaries and Management Strategies* (Davis: University of California, Centers for Water and Wildland Resources, 1996)

[13] Final Draft Delta Plan, Chapter 4, lines 38, 39 & 141.

[14] Forests and Water in the Sierra Nevada: Sierra Nevada Watershed Ecosystem Enhancement Project, November 2011. Sierra Nevada Research Institute, UC Merced, Center for Forestry, UC Berkeley & Environmental Defense Fund, Roger C. Bales, John J. Battles, Yihsu Chen, Martha H. Conklin, Eric Hoist, Kevin L. O'Hara, Philip Saksa & William Stewart

This will require actions to be taken outside the scientific prevue of the Delta ISB. We encourage the ISB to communicate and collaborate with experts on the Sierra Nevada Ecosystem from the Sierra Nevada Institute (U.C. Merced) as well as the U.C. Berkeley Center for Forestry. Only by "expanding the bookends" of the Delta ISB, can the Council act on information that is critical to restoring watersheds and forests to their historic ability to function upstream of the Delta.

Absent taking actions in the Sierra forests and watersheds, the Council will be trying to implement a Plan doomed to fail because it left valuable and clearly visible assets off the table and unused. The evidence gathered by the research at the Sierra Nevada Institute shows that significant improvement in water yield, timing of the release of snowpack and therefore the value of water, is possible through restoring the Sierra forests to historic stand densities.[15] This dynamic should not be lost in the focus on the "downstream" work of restoring the Delta ecosystem.

The Plan's own discussion of "More Natural Functional Flow" in Chapter 4, fails to recognize the nexus between upstream Sierra forest landscapes and their influence on stream flow, and downstream ecosystem goals. Such a segmented approach to restoration is neither cost effective, or sustainable.

This Plan represents an opportunity for the Council to lead the State forward by embracing a more expansive view of the efficient use of water throughout the hydrologic cycle. This Plan can provide a vision that incorporates an examination of California's water resources, against a standard of hydrologic system efficiency of use, on any landscape, in any location, from the highest Sierra peaks to the beaches of the Pacific Ocean.

We would be happy to assist the Council in their efforts to bring about the necessary changes in the final Plan narrative for this chapter as well as better expand the scope of future actions. Additionally, we are prepared to assist the Council and their staff in refining a broader application of the efficient use of water resources throughout the hydrologic cycle.

To include this effort in the Plan we request you add the following recommendation:

ER R8 Development of an integrated science, research and pilot program to evaluate the role of Sierra Nevada Forest Management and Watershed restoration as a component of sustaining more historic flow conditions from upstream coniferous forests.

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[15] IBID

The Council will direct the ISB to regularly communicate with the Sierra Nevada Institute and other appropriate stakeholders, regarding the research and restoration efforts taking place within the Sierra Nevada Ecosystem regarding the Sierra Nevada Ecosystem Enhancement Project (SWEEP). The objective will be to cooperate in the development of a base of information sufficient to determine the role of upstream management of Sierra Nevada forests and watersheds to positively influence the volume, timing and water quality in both Delta ecosystem restoration and the advancement of the efficient use of water resources of the State of California in support of the coequal goals.

We again thank you for the opportunity to comment on the Final Draft Delta Plan. Our agency will continue to work with the DSC and their staff throughout the remainder of the DSC Plan process as well as the upcoming early implementation phase of the Council's work. We will continue to participate in DSC meetings and workshops to assist the Council and their staff in support of the Plan. As a responsible agency under CEQA we have also reviewed the Recirculated P.E.I.R.

Sincerely,

Jim Grinnell

Jim Grinnell
Vice President, Board of Directors
Tuolumne Utilities District