

**From:** Paul Choisser [<mailto:pacchoisser@yahoo.com>]  
**Sent:** Thursday, September 29, 2011 4:21 PM  
**To:** Delta Council  
**Cc:** Alvarez, Eric@DeltaCouncil  
**Subject:** Comments on 5th Draft of the Delta Plan

**To: Honorable Delta Stewardship Council Members**

**From: Paul Choisser, PAC Environmental and Urban Land Use  
Planning Consulting Services**

**Date: September 19, 2011**

**RE: Public Comments regarding the Fifth Draft of the Delta Plan**

**CC: Delta Independent Science Board**

**Honorable Members of the Delta Stewardship Council,**

I'll start this correspondence the same way I have started most, if not all, of my previous correspondences to you, so you will (or may) recognize who I am. My name is Paul Choisser. I am a Concord, CA resident, owner of PAC Environmental and Urban Land Use Planning Consulting Services, a Delta boater and a Delta fisherman. I spoke at the January 20, 2011 Delta Plan Notice of Preparation (NOP) Scoping Session for the Propose Draft Environmental Impact Report for the Delta Plan at a meeting held in Concord, CA on that date. I followed up with written correspondence to clarify, memorialize and perhaps expand on those comments and request further graphic representations in the Delta Plan document for a more comprehensive and readable display of what the document is attempting to address.

**Mapping Graphics Needed**

Although I appreciate the comments of the **Delta Independent Science Board** I have to disagree with some of those comments in that I believe the document does not adequately explain the existing setting and environmental problems inherent in the Delta plumbing system because of and exacerbated by the pumping of fresh water resources from the southern extent of the Delta. Those problems which I would characterize as the pumping of water from the Delta for the central valley agricultural and southern California suburban/urban uses cause a "sideways" and/or "reverse" flow to the natural fresh water hydrology of the Delta. This should and could easily be explained and graphically represented (fairly easily) by the utilization of two or better yet to graphically describe the seasonality of the Delta hydrology probably at least four (4) maps.

The first two maps would utilize an overlay of a representation of the historic flows of fresh water resources (put some big arrows on it) over a USGS Navigation Chart. Show two maps representing the high water (winter and spring) flows. The second two maps would again utilize an overlay of a representation of what we currently know about the diversion of fresh water resources for export out of the Delta at its' southern end over a USGS Navigation Chart and would more readily represent and explain the problems that the diversion and export of fresh water resources out of the Delta has been creating. The second two maps would graphically represent the low water (summer and fall) flows. The layperson who has no historic knowledge of the problems inherent in the plumbing of the Delta needs to be able to quickly, if not immediately, understand what has been happening. The graphic representations I have prescribed should go a long way in alleviating anyone's ignorance in this regard. The use of a USGS Navigation Chart of the Delta showing what could be characterized as the natural hydrological flow of the Delta without the influence of the exporting of fresh water resources from the Delta and consequently from the fresh water resources of the San Francisco Bay as we know it traditionally/historically existed and how those resources have been altered or changed by the diversion/export of water at the southern end of the Delta by the pumps for the Central Valley Project and the California Aqueduct are two of the major problems creating environmental and ecological havoc in the Delta.

If a hydrologist were to get even more detailed, on each of the maps they could include representations describing the phenomena that occurs when a flow of water meets resistance on its' exterior edges either just due to its' outer edges just moving more slowly than its' interior body, its' outer edges meeting the resistance of less slowly moving water at its' exterior or its' outer edges meeting the resistance of the benthic substrate. Those exterior portions of the flowing body of water tend to peel off in a direction that is not in conjunction with the main flow of the body of water.

## **Additional Graphics Needed**

In these comments on the Fifth Draft of the Delta Plan I also wanted to reiterate what I have previously indicated as what I feel is a needed for the document to provide clarifying graphics to make the document more readable, accessible and understandable to the layperson, breakup the monotony of text and insure that all parties who attempt to review and, eventually, once it is adopted, attempt to use and utilized the document and the information that it provides and an adequate and accessible means to accomplish such goals. I do feel that the inclusion and use of the "flow charts" as are currently indicated in the draft document is commendable and

appropriate. I do realize that such further graphical representations are currently being considered for development.

## **Additional Measures Needed**

1) The existing Delta plumbing as I have previously indicated as was recently confirmed by the staff at Bay Estuary Institute has historically had significant implications for the estuary of San Francisco Bay. Measures for the protection of the water quality of the San Francisco Bay are needed.

2) Included in the Delta Plan should be measures for water conservation for agricultural use in the San Joaquin Valley which would include the requirements for the utilization of drip irrigation and for salinity washing and capture and storage and/or recycling. Currently water conservation is neither necessarily mandatory nor effective. The water wasteful practice of pouring more and more water on agricultural lands that are becoming overburdened with salts due to evaporation can easily be counteracted by the employment of the modern practices of washing and capture of those wash waters.

3) Additionally included in any plan for the restoration of the delta should be incentives, initiatives and regulations regarding the release of effluent from sewage treatment facilities. These releases of untreated, barely treated or ineffectively treated sewage as we all well know result in increased nutrient loads (nitrogen) which result in the inappropriate growth of inappropriate vegetative matter and changes in the water chemistry regarding the oxygen/carbon dioxide profiles in the water column and ammonia which changes results in changes in the pH profiles of the water. Both of these phenomena result in stresses to zooplankton, crustacean, fish and other aquatic populations. Particularly these should include requirements that any treatment plant releasing effluent into the delta or tributary which flows into the Delta standards for the quality of such effluent. Particularly those standards should include the level of treatment of such effluent such as requiring that it is subjected to tertiary or where appropriate merely secondary treatment.

I, also, wanted to extend my appreciation to the **Delta Independent Science Board (ISB)** for their comprehensive and analytical comments on the various sections of the Delta Plan and for going far beyond and above what I would have expected such a board to take on as their responsibilities in reviewing the document. I will again elaborate on that after I finish making these initial comments on the fifth staff draft of the Delta Plan as follows:

The **Delta Plan** document and the issues it is mandated to, and is attempting to, address, as I see it, are basically ones of a geographical, particularly bio-geographical, and economic nature.

Therefore there is a Geographical and Economic basis for needed graphical representations in the document. I have noted that there is only one map contained within the document as, so far, presented. Some of my comments contain herein may be premature but should be considered as a preemptive notice of what should be expected to be represented within the document as it develops and policies and programs are generated. My comments are not to be considered as comprehensive and should only be considered to be general in nature and not specific to individual, or as yet to be, cited text within the draft document. If I develop the available time I will attempt to modify this correspondence to be more specifically directed to sections and text within the document. Again I realize that graphical representational material is being developed for the document and will probably comment on that material as it is presented to the public in subsequent iterations of the drafts of the Delta Plan.

a) In the sections pertaining to biological populations and sustainability failure and the necessity to address the need as such, I have noted that there is only one map contained within the document as, so far, presented. There are no map views or plan views of population migratory patterns and potential population dynamic failure causal areas. No section views of appropriately engineering designs for redressing the issues such as remedies pertaining to diverting, moving, transferring or pumping water resources around the Delta from the Sacramento River to the transfer pumping stations and the recommendations as to how they should be constructed, or other remedies as to how the current situation could or should be repaired or redressed. For the reasons I have expressed above I believe there should be.

b) In the sections pertaining to potential levee failure and necessity to address the need as such As such, I have noted that there is only one map contained within the document as, so far, presented. There are no map views or plan views of potential levee failure areas. No section views of appropriately engineering designs for levees as they should be constructed, repaired or redressed. For the reasons I have expressed above I believe there should be.

c) In the sections pertaining to economic analysis there are limited pie charts and bar graphs representing such economic assertions, observations, explanations and analysis of the economic implications and expectations of the analysis and underlying principals and goals of the programs and policies contained within the document. For the reasons I have expressed above I believe there should be.

Again, I also wanted to extend my appreciation to the **Delta Independent Science Board (ISB)** for their comprehensive and far reaching review of the document and for going far and above (beyond the call of duty) of what I would have expected such a board to take on as their responsibilities in reviewing the document. When I read their comments on the findings I believe they were doing their duty in reviewing the document and making comments however I perceived an aspect of their review to almost encroach on editing the document to the level of which I found commendable. The role of editorship is an exceptional quality of taking on more than what I expected they would be undertaking although I see how that process blended with what I expected of them in that they appeared to be essentially saying either "you can't say this because you can't document what you are saying" or "there is no scientific basis for these

comments to be included in the document" or "let's just not go there, but let's go here". The role of the reviewers of the scientific readability, reliability, comprehensiveness, sophistication, analysis and just plain review of the good science of the scientific assertions contained within the document is certainly an admirable one and I congratulate them on their thoroughness. I feel we are fortunate to have them take the initiative to expand upon their role and scope of services and responsibilities.

And, further I wish to thank the **Delta Stewardship Council** for the opportunity to comment on the document as it is developed and for the openness and extension of openness of process, opportunities programs and policies for the public to contribute to the review of the document's analysis, programs and policies.

Thank you.

Sincerely,

**Paul Choisser**

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