June 13, 2012

Sent via email to: DeltaPlanComment@deltacouncil.ca.gov

Phil Isenberg, Delta Stewardship Council Chair
Delta Stewardship Council members
Delta Stewardship Council staff

Re: City of Antioch comments on the Delta Plan 6th Draft

Dear Chair Isenberg, Delta Stewardship Council (DSC) council members and staff:

The City of Antioch (Antioch) is pleased to submit its comments regarding the Delta Plan 6th Draft. The 6th Draft is well-written and contains accessible language. It effectively serves as a 'primer' on the Delta and California's water system, with all the competing interests and conflicts.

Antioch would also like to commend the DSC for its approach to public involvement during the Delta Plan process. The Delta Plan process has been the most open and transparent of the current Delta related processes. This process is an example of how public involvement can work, and should serve as a model for other programs currently going on in the Delta.

Antioch thanks the Council for including information that Antioch and others such as CCWD have provided, such as historical records of a fresh, tidally influenced Delta, and the scientific evidence for and importance of Delta outflow for species and beneficial uses.

Our comments on the 6th Draft Delta Plan are primarily about policies, language inconsistencies, Delta flows, salinity, and the impacts of the BDCP on the co-equal goals. Our comments are presented in table format, following this letter.

Key Issues we would like to bring to your attention:

- Language among Chapters is inconsistent regarding the role that water exports and diversions from the Delta have played in the decline of fisheries and the increase in salinity. The DSC provides correct information in some Chapters, and excludes it in others.

- Language among Chapters regarding the Delta outflow as a key factor for fisheries health is also inconsistent, despite the DSC Science Board's findings regarding the impacts that the reduction in Delta outflow has had on fisheries and beneficial uses.

- The Plan utilizes the term "Natural Functional Flow," which is not clearly defined. It is not clear how a "functional natural flow" concept would be measured or implemented, and more clarity or explanation are requested.

Department of Public Works/Capital Improvements Division
P.O. Box 5007, 200 H Street, Antioch, CA 94531 • Tel: 925-779-7050 • Fax: 925-779-7062 • www.ci.antioch.ca.us

- Delta Plan incorporation of the BDCP
  - The Delta Plan does not include discussion of other options besides the BDCP, and whether other alternatives could help restore the Delta and meet the coequal goals. Making the BDCP the centerpiece of the Delta Plan with respect to water supply reliability and ecosystem restoration weakens the Plan and jeopardizes attainment of the co-equal goals.
  - How can DSC approve the BDCP if it decreases Delta outflow, increases Delta water exports, and results in higher in-Delta salinity levels?
  - Antioch is concerned that the Delta Plan may simply end up becoming the BDCP.

- Matching Water Supply and Water Demands – DSC does not take a strong enough role in the Delta Plan. If DSC is not going to require this, who is?

- While Antioch realizes that restoration of the Delta involves multiple and complex issues, the City maintains that increased Flow— the key component to any restoration— should be acknowledged as such in the Delta Plan.

The City of Antioch thanks the DSC for this opportunity to comment on the Delta Plan 6th Draft.

Sincerely,

Ron Bernal

Ron Bernal, P.E.
Director of Public Works/City Engineer

City of Antioch comments on the Delta Plan 6th Draft

June 13, 2012

Chapter	Page	Lines	Text Reference	Comments	Recommendations
1	9	17-28	Entire section that starts: "Today the Delta is many things to many people..."	This section is misleading in that it lacks discussion of water diversions as a factor in the decline of Delta health. Chapters 1, 2, 3 and 6 discuss factors leading to Delta decline and impacts to species, water quality and flows. Yet there is little or no mention of the steady increase in diversions from the Delta, which have caused reduced Delta outflow and increased salinity intrusion. The reduction in Delta outflow has impacted species and municipal water supplies in the Delta. The Delta Plan needs to state this. The best available science demonstrates that flow is essential to restoration of the Delta ecosystem.	1. Add increased diversions as an impact to the Delta of today 2. Suggest inserting language from other chapters, for example: • Chapter 3, Page 67, lines 22-25 – "Yet the long-term impacts of these diversions on the Delta and its watershed, in combination with many other factors, are causing native fisheries to decline. • Chapter 4, Page 145, lines 33-35 "The best available science suggests that currently required flow objectives within and out of the Delta are insufficient to protect the Delta ecosystem and that additional inflow and outflow are necessary (SWRCB 2010)." • Chapter 6, Page 228, Lines 7-10 "Historically, natural flows through the Delta regulated salinity in a way that favored the Delta ecosystem. Today, salinity in the Delta is dominated by the effects of upstream water diversions* and the use of the Delta to convey flows to central and southern California.

Chapter	Page	Lines	Text Reference	Comments	Recommendations
1	9	19-21	"Residue of upstream urban and agricultural users causes problems for downstream fish and water diverters."	This indicates pollutants, but does not identify diversions or exports as impacting downstream species and municipalities.	Clarify "residue" or change to "***Impacts*** of upstream urban and agricultural users and ***increased diversions*** cause problems for downstream fish and water diverters."
1	11	1-4	"This Delta Plan is intended to be a foundational document that prioritizes actions and strategies in support of key objectives such as the state's requirement to reduce reliance on the Delta to meet future water supply needs. It also restricts actions that may cause harm; services as a guidebook for all plans, projects, and programs that affect the Delta; and calls for further investigation and focused study of specific issues."	How can the Delta Plan incorporate the BDCP if the proposed BDCP project would cause harm? BDCP as proposed would cause harm as a result of: a) BDCP increases the amount of water diverted from the Delta b) BDCP decreases the amount of Delta outflow, which impacts not only species but beneficial uses c) Increases salinity	Explain how the Delta Plan can incorporate the BDCP if BDCP violates the Coequal Goals, which would result in the Delta Plan violating the coequal goals.
1	21	43-44	Improves water quality by prioritizing State and regional actions to deal with high-priority Delta-specific water quality problems.	What State and Regional actions is the Plan referring to here?	

Chapter	Page	Lines	Text Reference	Comments	Recommendations
1	23	8-11	No water rights decisions or water contracts that directly or indirectly impact the Delta are made without consideration of the coequal goals.	Antioch understands that the Delta Reform Act was not supposed to impact water rights. How do the coequal goals impact the Delta Reform Act's mandate not to impact water rights?	Clarify how coequal goals will/not impact water rights under the Delta Plan.
2	43	26-39	Incorporation of the Bay Delta Conservation Plan into the Delta Plan "...would have large impacts on the Delta and would affect the coequal goals." "Council may incorporate other plans or programs in whole or in part to the extent they promote the coequal goals."	BDCP State and Federal agencies are currently exploring a new BDCP without any surety of how BDCP will promote or meet the Coequal goals. How can BDCP be incorporated into the Delta Plan if it has "large impacts" and there is no guarantee of it promoting or meeting the coequal goals? Is the DSC and the Delta Plan discriminating in its approval of Delta projects by allowing an uncertain project like BDCP, yet requiring other projects to promote the coequal goals?	Clarify how BDCP can be incorporated into the Delta Plan when BDCP project documents currently suggest: • Increased exports from the Delta do not meet the requirements for decreased reliance on the Delta for water Supply. Conveyance that is planned and built with no certainty that restoration will improve the health of the Delta • "Trust me" policy for water operations that increase total diversion levels from what they are today, even as the Delta ecosystem is crashing and in the face of scientific knowledge that Delta outflow is understood to be a major factor for species survival. • Prior effects analyses have shown adverse impacts on species, increased salinity and adverse impacts to in-Delta beneficial uses.

Chapter	Page	Lines	Text Reference	Comments	Recommendations
2	53	21-26	However, the underlying action requiring the take permit could be a covered action and, if it is, it must be consistent with the Delta Plan's policies. Therefore, even when a covered action is regulated by another agency (or agencies), the covered action still must be consistent with the Delta Plan. In the situation where a covered action is governed by 25 multiple agencies and laws, the action must comply with all relevant legal requirements.	If BDCP is permitted, but its "underlying actions" are not consistent with the Coequal goals or the Delta Plan Policies and Recommendations, can the DSC take action? Policies and Recommendations such as: • Do no harm • Reducing reliance on water supply from the Delta	Clarify what underlying actions might be actionable by the DSC under the Delta Plan as it relates to BDCP
2	56	30-32	Covered actions not exempt from CEQA must include applicable mitigation measures identified in the Delta Plan's Program EIR, or substitute mitigation measures that the proposing agency finds are equally or more effective.	• How does this apply to mitigation for the BDCP? • BDCP does not specify mitigation measures for public trust uses of Delta water, such as by in-Delta municipalities such as the City of Antioch • What is the Delta Plan policy in regards to making sure that the BDCP spells out mitigation measures for the impacts other than ecosystem impacts?	• Make sure that the Delta Plan spells out how BDCP must include mitigation for all impacts as part of the EIR/EIS project and potentially suggest such mitigation measures. • Describe what action DSC can take if this is not done.

Chapter	Page	Lines	Text Reference	Comments	Recommendations
3	67	22-25	The economies of major regions of the state increasingly rely upon the ability to use water within the Delta watershed or to import a portion of their water supply from the Delta watershed. **Yet, the long-term impacts of these diversions, on the Delta and its watershed, in combination with many other factors, are causing native fisheries to decline.**	This statement is good, and accurate	The economy of the Bay-Delta Region depends on water from the Delta and on freshwater outflow and inflow. Use this language (and other language recommended from Chapter 6) to refer to the impacts of diversions from the Delta as a key factor for why the Delta is in decline, as follows: **"The long-term impacts of Delta diversions on the Delta and its watershed, in combination with many other factors, are causing native fisheries to decline."**

Chapter	Page	Lines	Text Reference	Comments	Recommendations
3	68	Box: what does it mean to achieve the goal of providing a more reliable water supply for California?	1st paragraph Achieving the coequal goal of providing a more reliable water supply for California means better matching the state's demands for reasonable and beneficial uses of water to the amount of water supply that is available. 3rd paragraph Water exported from the Delta will more closely match water supplies available to be exported, based on water year type and consistent with the coequal goal of protecting, restoring and enhancing the Delta ecosystem.	Not matching supply and demand is in violation of the coequal goals 'Better matching' and 'more closely match' do not make a strong statement.	• Change the language to include a timeframe for meeting these goals, absolutely • Consider making this a policy • Antioch strongly suggests that the criteria from the Delta Protection Act be used – e.g. first determine the needs of beneficial and public trust uses in the Delta and then determine how much extra water may be available for export.
3	69	Lines 21-31	Also in the future, water exports from the Delta will more closely match water supplies available to be exported, consistent with California's variable hydrology and the coequal goal of protecting, restoring, and enhancing the Delta ecosystem.	• Once again, this needs to be strengthened to say that supply and demand will be matched • What is the mechanism to be used?	Antioch strongly suggests that the criteria from the Delta Protection Act be used – e.g. first determine the needs of beneficial and public trust uses in the Delta and then determine how much extra water may be available for export.

Chapter	Page	Lines	Text Reference	Comments	Recommendations
3	69	21-31		• The Plan needs to recognize that increasing diversions from the Delta during wet years will also increase salinity intrusion in those years. • What will be the impacts to species and in-Delta beneficial uses? Antioch's research indicates it will have impacts on Antioch's ability to divert freshwater in those years.	• The Plan needs to acknowledge the impacts that increasing diversions during wet years will have on species and beneficial uses. • The Plan should suggest mitigation for any such impacts.

Chapter	Page	Lines	Text Reference	Comments	Recommendations
3	69	Lines 26-28	These Delta exports will support more natural flow patterns in the Delta, which will aid native species and reduce regulatory uncertainty that currently threatens reliability of water exports from the Delta. At the same time, deliveries of Delta water will be more predictable due to use of storage to deliver wet-year water that is exported and stored for future use. Flexibility of export operations will be enhanced through implementation of local and regional water efficiency and water supply projects that reduce pressure on the Delta and reliance on these deliveries.	This appears to be about the **'big gulp'** concept. How much water can be taken during wet periods and wet years, and still maintain the fisheries in the Western Delta that are dependent upon Delta outflow? Does the science support this concept and if so, how much can be taken, and when? What is the guarantee that fisheries (and other beneficial uses) in the Western Delta will be able to survive increased diversion during wet periods and wet years?	• Include scientific discussion in the Delta Plan that explains the downstream impacts of taking more water in wet years and wet periods. • Include the impacts of such practice on the Western Delta species and beneficial uses, and quantify and note the impacts to salinity in the western Delta.

Chapter	Page	Lines	Text Reference	Comments	Recommendations
3	75	Climate Change and California's Water – whole section		• The Plan should outline methodologies to respond to the impacts of Climate Change. • Restoring the Delta to a more close approximation of its historic configuration could help – e.g. increased wetlands, increased outflow. • The burden of climate change should not be at the expense of the Delta, and climate change will likely exacerbate the impacts of diversions from the Delta. Diversions from the Delta should be reduced so that the Delta and its species can recover.	Include discussion of the following: • Methodologies to respond to the impacts of climate change • How restoring the Delta to a more historic configuration could help address the impacts of climate change • How reduced exports and diversions of water flowing into and through the Delta can help deal with climate change
3	76	Whole section	Foundations of Water Policy in California	• Priority is the foundation of California Water Law and the Delta Reform Act specifically preserves California's Water Rights system. • The recitation in the Delta Plan seems to assume that Reasonable Use and Public Trust provide some sort of 'carte blanche' to re-apportion water, which is not the case.	• Clarify this section to include discussion of the Reasonable Use and Public Trust and how it can/can't replace the water rights system nor provides a method for re-apportionment. • Discuss how enforcing priority could help achieve the coequal goals – e.g. riparian rights in the Delta take priority over upstream appropriative uses and the exports.

Chapter	Page	Lines	Text Reference	Comments	Recommendations
3	82	Box: Where Delta Water Comes from and goes – 2nd paragraph	Over the past century, upstream diversions and water exports have transformed the Delta, reducing outflows to the ocean by an average of 50 percent.	This is an important statistic, and should be included in other sections of the Delta Plan that describes how the Delta came to be in the state it is in today.	Include wording in Chapter 1 sections that describe factors that have led to Delta decline.
3	87	6-10	The plan says that fish predation at the present export pumps could be reduced if the current diversion pumps were moved.	The Plan needs to cite the basis of this comment. It implies that if the pumps are moved north as proposed by the BDCP, that fish predation could be reduced. Antioch is unaware of any such studies and the BDCP effects analysis indicates a northern diversion would adversely impact fish as the BDCP is presently configured. The Plan cites DWR studies for this conclusion – are there any independent studies? What about any studies that reach any contrary conclusions?	Cite the scientific basis for this conclusion. Include also scientific research that does not support this conclusion.
3	90	Box – Bay Delta Conservation plan and water supply reliability	The Delta Stewardship Council has a potential appellate role regarding the inclusion of the BDCP into the Delta Plan		Please provide clarification about the scope of DSC's appellate role.

Chapter	Page	Lines	Text Reference	Comments	Recommendations
3	94-96	Implementing a Path to Success in Local Water Management	Whole Section	• The plan appears to be placing much of the burden for conservation and water efficiency on local districts to mitigate for the impacts of the BDCP, SWP and the CVP. It should be the other way around – the BDCP in particular should pay for conservation and efficiency programs implemented by local agencies and municipalities that make additional water available for export or to mitigate the impacts of the exports. This should become a core principle of the Plan. • The Plan calls for the completion of the BDCP. Does this mean that the DSC and the Delta Plan support a northern diversion and peripheral canal/tunnel? How can the BDCP and the peripheral canal meet the coequal goals when the Effects Analysis to date show adverse impacts to species and beneficial uses in the Delta (e.g. increased salinity?) • The Delta Plan should specify how it believes that the BDCP and the peripheral canal can meet the coequal goals and provide guidance to the BDCP on this issue.	• Add language that discusses how increased diversions and exports over time have contributed to the decline of the Delta. • Discuss 'who pays' issue in regards to conservation and efficiency programs as a result of the impacts of diversions and exports. Consider BDCP providing funding to help local agencies mitigate these impacts through such programs. • Include language about BDCP impacts to species and beneficial uses • Specify how the BDCP and the conveyance can meet the coequal goals. • Provide guidance to BDCP on this issue

Chapter	Page	Lines	Text Reference	Comments	Recommendations
3	103	41-44	As an interim step toward increasing California's water supply reliability, the State should identify, prioritize, and implement smaller and more incremental operational, conveyance, and storage improvements (such as expanding existing facilities or constructing new ones) that can be accomplished quickly, preferably within the next 5 to 10 years.	We appreciate the Delta Plan taking a position here to explore smaller and more incremental improvements over the short term. However, the cumulative impacts of these smaller projects must be considered and mitigated. The CEQA review for such projects must also consider the cumulative impacts of the BDCP.	• The benefits and impacts of these smaller projects should be considered and mitigated. • Projects should be considered that could negate the perceived "need" for the BDCP (e.g. storage along the west side of the southern San Joaquin Valley).

Chapter	Page	Lines	Text Reference	Comments	Recommendations
3	108	32-25	**Delta Water master.** The Delta Watermaster is in the process of completing an assessment of potential illegal water diversions within the Delta. This assessment should be expanded to the Delta watershed and should include recommendations for how the over-allocation of water rights within the Delta watershed should be addressed.	This raises a question about BDCP exports: Does this mean that the Delta Watermaster can make recommendations that apply to the BDCP plans to divert more water (over-allocation) than currently exported form the Delta?	Clarify Delta Watermaster's role in water allocations for BDCP

Chapter	Page	Lines	Text Reference	Comments	Recommendations
4	125	Stressor Categories to help with Management Options	Box- Current stressors result from ongoing human activities that at least in some cases can be eliminated (for example, fish entrainment at water diversions and pollution from point sources). Legacy stressors result from past actions that cannot be undone but whose impact can sometimes be reduced or mitigated (for example, mercury pollution from historical gold mining and past introductions of nonnative species)	• There is no mention of increased diversions as a Stressor Category, for Current, Legacy or Future stressor management • This is a known stressor that has led to species decline for current and legacy conditions, and that could lead to continued decline or future conditions. • In other parts of Chapter 4, such as on Page 129, lines 47-49, the Plan references the current Delta outflow regime: • Current flow management regulations provide some protection for ecological functions and native species, but the current Delta flow regime is generally harmful to many native aquatic species while encouraging nonnative aquatic species (SWRCB 2010).	• Present studies by the SWRCB provide that greater inflow and outflow are needed for in-Delta public trust resources. • Include text about ever-increasing diversions as a stressor that needs to be managed. Suggest using verbiage from Chapters 3 or 6. For instance, Chapter 3, Page 82, box: "The long-term impacts of Delta diversions on the Delta and its watershed, in combination with many other factors, are causing native fisheries to decline."
4	129	27-49	Whole paragraph	Diversions and exports should also be mentioned explicitly as one of the reasons that present-day Delta flows are different from historic flows	Please add explicit mention of diversions and exports

Chapter	Page	Lines	Text Reference	Comments	Recommendations
4	130, 131	All	"More natural functional flows"	The discussion of "natural functional flows" is vague. It is not clear what metrics would be used to judge whether or not natural functional flows are occurring, or how flow management practices could be changed to achieve "natural functional flows."	Please add some examples of how "natural functional flows" could be measured, and what implementation actions or changes might be needed to achieve "natural functional flows."
4	145	19-20	Success of Delta ecosystem restoration depends on considering and addressing all stressor categories, **as well as completing and implementing the BDCP** described in Chapter 3.	• Is the Delta Plan saying that success of Delta ecosystem restoration depends upon BDCP? • Aren't there other ways to achieve the same goals without the BDCP as currently proposed? • Are any other restoration plans being considered for the Delta other than the BDCP? Shouldn't the Delta Plan support and evaluate alternative plans to the BDCP? • Currently the BDCP effects analysis show that the BDCP will have adverse impacts on species, delta flows, and in-Delta Salinity levels.	Suggest changing the wording to indicate that BDCP is one proposal to address stressors, but is not the only option for ecosystem health and recovery. This would be consistent with the results of the BDCP effects analysis.

Chapter	Page	Lines	Text Reference	Comments	Recommendations
4	145	25-26 33-35	The best available science demonstrates that flow management is essential to restoration of the Delta ecosystem. The best available science suggests that currently required flow objectives within and out of the Delta are insufficient to protect the Delta ecosystem (SWRCB 2010).	This wording is very important and is lacking throughout the Delta Plan, as our comments indicate.	Appropriate language about flow and Delta outflow needs to be incorporated into Chapter 1, 2, 3, and 6 – basically every chapter that talks about the state of the Delta, how it came to be in its current state, and in chapters that talk about water supply, quality and ecosystem. Examples from the Delta Plan 6th draft include: Chapter 4, page 145, lines 33-35: "The best available science suggests that currently required flow objectives within and out of the Delta are insufficient to protect the Delta ecosystem (SWRCB 2010)." Chapter 3, page 82, box: "Over the past century, upstream diversions and water exports have transformed the Delta, reducing outflows to the ocean by an average of 50 percent."
4	146	12-13	Flow objectives could be implemented through several mechanisms including negotiation and settlement, FERC relicensing or water rights hearing.	There is a danger of piece- mealing under CEQA. This might not achieve the flow objectives desired.	• Clarify how this this approach would meet CEQA requirements. • State that all such processes should be open and public and done with stakeholder (e.g. Delta) participation and coordinated through the SWRCB.

Chapter	Page	Lines	Text Reference	Comments	Recommendations
6	214	27-30	The location, extent, and dynamics of this freshwater-saltwater gradient has changed over the past 150 years because of landscape modification, water management and flood management infrastructure such as dams and conveyance facilities, channel dredging, and climate change.	"Water management" is vague. In addition, it bears mentioning that the increase in diversions and exports have reduced Delta outflow, causing in the freshwater-saltwater interface to move eastward into the Delta.	Suggest replacing "water management" throughout the document with ***"water management, including increased water diversions and exports from the Delta."*** Note wording in Chapter 6, page 228, lines 3-18, which accurately describes the "water management" issue.
6	215	11-13	However, strong evidence indicates that the western Delta was a freshwater ecosystem for 2,500 years before human modification in the nineteenth and twentieth centuries (Malamud-Roam and Ingram 2004).	Antioch appreciates that the Delta Plan acknowledges an historically freshwater Delta. Antioch remains concerned that in other parts of the document, the Delta Plan still seems to be implying that a more saline environment is "natural."	The City of Antioch includes by reference its earlier comments on this subject.

Chapter	Page	Lines	Text Reference	Comments	Recommendations
6	216	16-19	The location, extent, and dynamics of the freshwater-saltwater interface in the Bay-Delta is an important factor in the distribution and abundance of many fish, invertebrate, and plant species, and is largely determined by the amount of fresh water flowing from the Delta west into Suisun Bay.	Antioch appreciates that the Delta Plan includes this language.	• Make sure that language below or an abbreviated version is included in Chapters such as Chapter 1, 2, 3, 4 that describe the stressors and factors that have led to the current state of the Delta and its fisheries. • From Chapter 3 p. 82 Where Delta Water Comes From and Goes: ***"Over the past century, upstream diversions and water exports have transformed the Delta, reducing outflows to the ocean by an average of 50 percent."***
6	217	28-30	However, sea level rise, Delta levee failures, and increasing salt from upstream all threaten Delta municipal and industrial water supplies	This section does not mention increased exports, reduced Delta outflow as factors that can impact in- Delta municipal and industrial water supplies.	Add language in bold below to this section: "However, sea level rise, Delta levee failures, ***increased water diversions and exports from the Delta***, and increasing salt from upstream all threaten Delta municipal and industrial water supplies"

Chapter	Page	Lines	Text Reference	Comments	Recommendations
6	218	15-17	Sea level rise, levee failure, salinity variability, agricultural water use, and increased urban runoff due to population growth in the watershed all pose a threat to drinking water quality.	• Increased or modified Delta exports could greatly increase the impacts of sea level rise by decreasing outflow. • Increased diversions and water exports from the Delta are not mentioned as an impact to drinking water quality. • As Antioch has commented throughout the 6 drafts of the Delta Plan, increased diversions and exports have a direct impact on water quality in the Delta. • This must be stated clearly and included throughout this document.	Add language in bold below to this section: "Sea level rise, levee failure, salinity variability, agricultural water use, ***increased water diversions and exports from the Delta,*** and increased urban runoff due to population growth in the watershed all pose a threat to drinking water quality."

Chapter	Page	Lines	Text Reference	Comments	Recommendations
6	218	36-39	Large-scale restoration of wetlands could increase the amount of disinfection byproducts formed in Delta water used for municipal supplies due to an increased amount of total organic carbon and the greater disinfection byproduct formation potential of wetland-derived organic carbon (Kraus et al. 2008).	• Antioch appreciates the Delta Plan including the impact of disinfection byproducts on municipal water quality, resulting from restoration. Antioch also notes that increasing habitat areas could also result in greater salinity in the Delta, as shown by BDCP modeling when habitat areas are land-ward of the City's intake. • Antioch is concerned about the lack of discussion/research about this topic, as it relates to in-Delta municipalities, especially in the BDCP. • Do current plans to restore 8000 acres and then tens of thousands more under BDCP include scientific research about the impacts of these projects on municipal drinking water supplies?	• Delta Plan should recommend open disclosure and scientific research about currently proposed restoration projects and impacts on not only water exported from the Delta, but also on municipal drinking water supplies in the Delta. • The Delta Plan should also disclose that large-scale restoration of wetlands could also increase salinity in the western Delta. This could be done in the paragraph entitled "Salinity" on p. 219.

Chapter	Page	Lines	Text Reference	Comments	Recommendations
6	220	12-14	The quality of Delta water with respect to drinking water use varies considerably both geographically and over time. Average organic carbon and bromide concentrations are very low in the Sacramento River where it enters the Delta. San Joaquin River water is moderately high in bromide, salinity, and nutrients, and moderately high in organic carbon. Intakes in the west Delta can be strongly influenced by the estuarine salinity gradient. An intake for the City of Antioch is frequently out of use because of salinity intrusions.	• Antioch appreciates that the Delta Plan acknowledges the impact to its intakes and water quality. • However, the City takes issue with the impression that is left by this passage that salinity intrusion alone is responsible for degrading water quality at its intake. As acknowledged in the City's agreement with DWR, exports from the Delta via the SWP are a primary source of water quality degradation at the City's intake.	Suggest rewording as follows with suggested added text in bold: "... Intakes in the west Delta can be strongly influenced by the estuarine salinity gradient***, which in turn is influenced by exports and diversions of water from the Delta***. An intake for the City of Antioch is frequently out of use because of salinity intrusions."

Chapter	Page	Lines	Text Reference	Comments	Recommendations
6	228	3-18	Protect Beneficial Uses by Managing Salinity "Historically, natural flows through the Delta regulated salinity in a way that favored the Delta ecosystem. Today, salinity in the Delta is dominated by the effects of upstream water diversions and the use of the Delta to convey flows to central and southern California.	This language is appropriate.	Use this language in other chapters where the impacts of increased diversions are not mentioned (see comments throughout this document.)

Chapter	Page	Lines	Text Reference	Comments	Recommendations
6	228	13-16	"Salinity affects Delta agricultural, municipal, and environmental beneficial uses, but in different ways. Currently, salinity and flow conditions in the Delta are affecting ecosystem, agricultural, and municipal uses. The timing and distribution of salinity is primarily affected by flow, which is largely determined by **water management** in the Delta and its watersheds as determined by applicable flow objectives."	• This language is good, but does not reference exports and diversions as a cause of increased salinity. Instead, it uses the term "water management," which is vague. • If timing and distribution of flow determines salinity distribution, why doesn't the Delta Plan call out diversions from the Delta as a major factor impacting salinity here?	• Include diversions as a major factor impacting environmental and other beneficial uses. • Define water management • Where "water management" is used, please add language in bold, as follows: "The timing and distribution of salinity is primarily affected by flow, which is largely determined by water management, ***including water diversions and exports from the Delta*** in the Delta and its watersheds as determined by applicable flow objectives."

Chapter	Page	Lines	Text Reference	Comments	Recommendations
6	228	16-18	Delta conditions have changed since the currently Delta flow objectives were adopted and ***new scientific information about salinity, flow and their effects on beneficial uses is available. "***	• What "new information about salinity, flow?" This information should be explained or set forth in an Appendix. • We are concerned that this refers to a theory about a more saline, highly variable Delta as a more "natural" regime. This theory has been referenced previously in the plan. • As Antioch and CCWD have previously commented, the variable salinity of the Delta occurred in the context of a much fresher Delta and much farther West than it does today. This fact is not mentioned, and leads to a misconception about where this variability should occur in the Delta.	• Clarify what scientific information about salinity and flow you are referencing, or delete it. • Reference the scientific evidence and why the Delta Plan is mentioning it • Include the many studies, cited in your plan about how Delta outflow is a major factor for species survival