DWR Comments on the Delta Stewardship Council Draft Interim Science Action Agenda - PDF Document
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Reviewer	Comment #	Section Title	Heading/Appendix/Table #	Page Number	Line Number	Comment
A	1	General Comment				The Science Action Agenda does not seem to lay any framework for being adaptable to changing science needs going forward. It would be helpful to have some language explaining how the DSP plans to systematically update the agenda to keep it relevant in light of new results or changing conditions.
A	2	General Comment				I'm concerned that the interview process to come up with the action agenda did not include several groups with an intimate knowledge of delta science including non-profit ag/fishing/environmental groups, university researchers, and biological consulting staff. Viewpoints from these groups would provide a useful perspective on what science is needed in the delta. Including all stakeholders interested in delta science would also move the process closer to the stated one delta, one science goal.
A	3	General Comment				In general, a statement about potential biases and pitfalls of the methods used would be helpful to put things in perspective.
A	4	General Comment				For the action area examples, many of the examples are quite specific and are clearly self-serving to those who provided them. In several instances, I found the examples not useful or confusing. Consider providing broader, generic examples, or more carefully screen examples included in the document.
A	5	Introduction	What does success for the Interim Science Action Agenda look like?	2	31	Fellow4s should be Fellows4
A	6	Introduction	What does success for the Interim Science Action Agenda look like?	3	2	agencies and organizations beyond those interviewed for the creation of the agenda? If not, then this seems circular
A	13	Science Action Areas	Table 2	4		I would suggest removing the counts of votes for individual actions. You state you are not ranking them, but with the vote counts people will naturally look for which got the most votes and think of those as being a higher priority.
A	7	Science Action Areas, Protect, Restore, and Enhance the Delta Ecosystem	Action 4	7	Example 2	This is more predation related than a conservation need
A	8	Science Action Areas, Protect, Restore, and Enhance the Delta Ecosystem	Action Area 5	8	15	lead should be leads
A	9	Science Action Areas, Protect, Restore, and Enhance the Delta Ecosystem	Action 6	8	Example 3	This example should be in the predation action, as action 6 is for lower food web items. Also, the list of factors encompasses many of the actions previously listed and thus spans many items on the agenda
A	10	Science Action Areas, Protect, Restore, and Enhance the Delta Ecosystem	Action Area 7	9	Example 2	Unsure what is meant by timeframe for future invasions. Such invasions are inherently unpredictable, therefore I don't see the utility in trying to develop a timeframe to try and predict them. Perhaps identifying potential invaders and researching vector control methods?
A	11	Science Action Areas, Protect, Restore, and Enhance the Delta Ecosystem	Action Area 8	9	6	I wouldn't limit this to just salmonid survival, but expand to include survival of native fish (or at the very least be inclusive of all listed species)
A	12	Science Action Areas, Protect and Enhance the Unique Cultural, Recreational, Natural Resource, and Agricultural Values	Action Area 9	11	Examples 1 & 2	These examples aren't economically focused and perhaps aren't good fits for this action area. Also, "good neighbor" is vague.
A	14	Science Action Areas		3	24-26	ambiguous "they"s. How do the science actions lead to building tools and human capacity?
A	15	Science Action Areas, Building the Infrastructure of Science	Action Area 14			Mention inproving data QAQC proceedures and documentation
B	1	General Comment for Document				the draft interim science action agenda still does not adequately address "how" the action items will come about.
B	2	Science Action Areas, Protect, Restore, and Enhance the Delta Ecosystem	Action Area 10	11	4	improving understanding of the sources and drivers of contaminants should also include those to drinking water. For example total organic carbon, dissovled organic carbon, and bromide are important constituents for drinking water. Salinity is another constituents of concern as these can have profound impacts on public health, the ecosystem, and drinking watertreatment plants.
C	1	General Comment for Document				General impression of the formulation of the ISAA is that it is largely responsive to the list of science actions that were suggested by interviewees. In fact, it seems like it is basically a compilation of the actions suggested. While it is informative to understand what all interviewees suggested as a science action, it does not necessarily provide a helpful organizing framework for scientists system-wide. Rather, the list simply reflects the respective agendas of the individuals and groups interviewed. I believe the ISAA would be more helpful if key science action areas were identified *a priori* regarding key knowledge gaps or critical upcoming management questions (e.g., how to achieve successful habitat restoration), and suggested science actions were screened for relevance to these pre-determined topic areas. In short, the DSP needs to take the lead in organizing/prioritizing the Action Agenda, rather than serving as a mechanism for participating groups to highlight their own agendas.
C	2	Executive Summary		iii	20	315 individual science actions is a huge number. This sounds like more of a list of a variety of scientists' and managers' favorite science projects, rather than a cohesive set of projects designed to dovetail with each other to produce cohesive knowledge of the Delta to inform the One Delta, One Science vision. I think it would be useful to provide a slightly more detailed summary here of how the information gained from interviews was organized and/or filtered to create the ISAA.
C	3	Introduction	What is the Interim Science Action Agenda and how does it address management and policy-related science?	1	17	Why is an "interim" science action agenda necessary? Why not focus on getting the formal, final agenda out that would have science actions prioritized and guided by the Policy-Science Forum?
C	4	Introduction	How was the Interim Science Action Agenda developed?	2	5	I am not clear as to whether the 17 science action areas were developed after all the interview responses were compiled, or were interviewees asked to put their suggested science actions into pre-determined action areas? It seems like this is explained in Appendix A, which indicates that interview responses were synthesized to develop the action areas in the ISAA, but this is a key process item that should be explain up front in the main document.

C	5	Introduction	What does success for the Interim Science Action Agenda look like?	2	25	Agreed that the Science Action Agenda will be successful when agencies and programs collaborate. However, not everything identified in the ISAA can happen without the addition of more staff and financial resources. It would be helpful if the ISAA can voice this critical need, in addition to underscoring the need for collaboration among existing staff in the participating agencies and other groups.
C	6	Introduction	What does success for the Interim Science Action Agenda look like?	3	6	Similar comment as above: leveraging resources to accelerate learning, etc., sounds good but it will always come at the cost of something else not getting done, which isn't always negotiable or reasonable. The result is that the same group of people are simply tasked with more work. Looks like this concern is addressed in Action Area 17, but enhancing the science capacity and intrastructure seems like an important item to call out specifically in this numbered list in this section.
D	1	General Comment for Document				My major comment about this document is that it doesn't seem to achieve the objective of developing real priorities. Instead, the document is a very long "wish list" from many diverse groups that all put their favorite projects in the list. The document may be a fair accounting of what issues are of interest to agencies and organizations, but really doesn't help to identify specific priorities. Indeed, there are a number of example studies that the broader scientific community would consider a bit questionable or high priority (e.g. see comment 6 & 8 below). At the very least, the document should describe some suggested approach to set priorities, even if those priorities aren't explicitly identified.
D	2	General Comment for Document				Related to the previous comment, the document should include a section about how the information should be used. How do the authors see this information being applied? This would be a good place to discuss that these actions should be implemented both based on individual research studies, but also based on evaluation of large scale actions (e.g. adaptive management). Right now the document seems very focused on research and monitoring, with not enough emphasis on the need for the design and evaluation of bold managment actions.
D	3	General Comment for Document				Also related to the previous two comments, the document should have a fairly lengthy section on the limitations of the document and the approach used. For example: 1) not all key parties were interviewed; 2) the list of studies likely excludes some extremely important alternative ideas; 3) the authors did not try and screen out specific suggestions or views; 4) the "wish list" approach isn't entirely impartial, etc.
D	4	Executive Summary		iii	8	I continue to worry that the "One Delta, One Science" will be misinterpreted. Specifically, some may assume that this represents a "Big Brother" approach to science. The Delta Science Plan had some text that help to address this concern. Please consider adding similar text here to avoid the perception that the Interim Agenda will discourage anything that is not on this list.
D	5	Executive Summary		iv	1	Just following the interim action agenda will not ensure that the science will be legitimate or credible. Perhaps reword this statement to avoid this implication?
D	6	Science Action Areas, Protect, Restore, and Enhance the Delta Ecosystem	Action Area 3	6	11-12	The life cycle model doesn't seem appropriate here. Just having a life cycle model with NOT avoid entrainment. It will only help to better quantify the effects. At the very least, consider moving this to the modeling Action Area.
D	7	Science Action Areas, Protect, Restore, and Enhance the Delta Ecosystem	Action Area 5	7	12-13	Example science action3 belongs in the predation section (Action 8), not here.
D	8	Science Action Areas, Protect, Restore, and Enhance the Delta Ecosystem	Action Area 8	10	Table	It is hard to see that Example 1 is a big priority compared to all of the other science gaps. By comparison, Example 4 is a huge and critical issue.
D	9	Science Action Areas, Improve Water Quality to Protect Human Health and the Environment	Action Area 11	12	8-9	The second Example science action doesn't seem something that should be included. It is just saying that we need to figure out questions and studies.....without providing any real suggestions. Consider deleting this.
D	10	Science Action Areas, Resources to Implement the Delta Science Plan	Action Area 17	16	Table	It seems a bit odd that perhaps our greatest need, more capacity for synthesis, is the absolute last thing in the report. I worry that this hugely important issue will get dismissed because it is late in the document.
D	11	Science Action Areas	Table 2	4		I worry a bit about including the count of individual Science Actions here. Many will interpret these numbers as some sort of ranking, which I don't believe is the case.
D	12	Science Action Areas	Table 2	4		Do the Action Area code numbers (1-17) represent some sort of level of importance? If not, the text should make it very clear that these numbers are not rankings. If so, I strongly disagree with the rankings--several of the larger numbered actions (e.g. 13-17) should be at the top of the list!
E	1	General Comment				In reading this document, I am missing "how" the framework will improve coordination and organization. How will this actually be put to use? I also find that the action areas need further development.
E	2	Introduction	How was the Iterim Science Action Agenda Developed	2	6	An Excel workbook "including" all…
E	3	Introduction	What does success for the interim science action agenda look like	3	1	what defines better science?
E	4	Science Action Areas, Improve Water Quality…	Action Area 10	11	9-11	Drinking water quality needs to be addressed. There is no discussion of drinking water quality constituents of concern such as organic carbon or bromide.
E	5	Science Action Areas, Improve Water Quality…	Action Area 11	12	4	Nutrients should also be addressed in terms of how they affect drinking water supplies, such as taste and odor events.
F	1	General Comment				The current draft ISAA does a good job of addressing many of the outstanding, important, issues and uncertainties relating to the Delta and its resources. However, the existing version appears to be more of a 'grab-bag' of hot topics than a well reasoned framework for addressing diverse issues. Many of the Action Areas are inter-related, and in some cases represent nested sets of issues, that appear to need further organization and development. At the very least, more shoud be said up front about the overlapping nature of many of the action areas.
F	2	Science Action Areas, A More Reliable Water Supply	Action area 3	6	7	The following exerpt "…actions (i.e., drought operations) on entrainment…" seems unnecessarily limiting in the context of considering water management actions that effect entrainment of native fishes. Consider citing drought operations as an example instead.
G	1	General				Overall, the tone of the document indicates that collaboration is not happening and needs to. The document should stress that the CALFED program lead to significant collaboration and highlight the collaboration that is going on. Currently, restoration project planning and the science to support that process is highly collaborative. Cite current projects and past. POD, MAST synthesis, FRPA, Tidal Marsh Monitoring Workgroup, etc.

G	2	General				One Delta, one science is an important goal. Collabration and synthesis is important, but it is also important to clarify that many very important scientific contributions come from focussed science by individuals. If scientists spend all of their time collaborating, there is little time to do the focused science that moves science forward. There is a delicate balance between collaboration and the act of doing science through focussed research. Scientists frequently know when they need to collaborate, so it is important to encourage collaboration but not force it.
G	3	General	Table 1	v		These Action Areas are a good start in an organizing framework; however,the action areas would be more useful if they pointed directly to the existing resources and documents that support them as much has been studied and written about these issues. Restating the issues without pointing to what is known and not known, and really identifying knowledge gaps in a more specific way, should be a future goal of this document.
G	4		Table 1	v		Protect and Enhance Cultural…... Add an Action Area under 9. 9b. Improve understanding of recreation constraints and opportunities in the Delta.
G	5		Table 1	v		Improve Water Quality…… Add an Action under 5 or 11, Understand how changes in habitat structure will affect temperature and dissolved oxygen.
G	6	Overall	Table 1	5		Under Action Area 1: Need to highlight the importance of the physical characterization of the watershed. Add 4. Improve knowledge of surface topography, bathymetry. 5. Improve knowledge of groundwater water. 6. Vegetation cover and extent in terrestrial and aquatic realm. 7. Improve knowledge of tidal datums/elevations and possible changes with climate change.
G	7	Resources to Implement the Science Plan	Add suggested concepts to examples or in text. Concepts could also be added to page 4, Infrastructure?	16		Improve the dissemination of scientific findings. This where the Delta Stewardship Council could play an important role in explaining science to the public and making the case for Science support.
G	8	Resources to Implement the Science Plan	Add suggested concepts to examples or in text. Concepts could also be added to page 4, Infrastructure?	16		Continue to support the role of the Delta Science Program to coordinate peer reviews of science. The CALFED Science program and subsequently the DSC Science Program has been an important resource for coordinating reviews.
G	9		Appendix A: Methods	A-1	38	Concerned that this document only referred to current 2014 documents and a limited number of interviews. The ISAA should include a longer history, reflecting some important reviews of data gaps.