

**From:** Mueller-Solger, Anke@DeltaCouncil  
**Sent:** Wednesday, January 11, 2012 11:29 AM  
**To:** 'Richard B. Norgaard'  
**Cc:** healey@interchange.ubc.ca; Hastings, Lauren@DeltaCouncil; Dahm, Cliff@DeltaCouncil; Harader, Sam@DeltaCouncil; Vinton, Joanne@DeltaCouncil  
**Subject:** comments regarding the DISB draft report on Delta Science

Dear Dr. Norgaard,

I would like to submit the following comments regarding the DISB draft report titled "An Initial Overview of Delta Science, the Delta Science Program, and the Roles of the Delta Independent Science Board."

I like and agree with your "key findings" – all good and valid points and great starting points for future discussions and eventual solutions. I also think that they reflect what I heard in the October and December meetings quite well, although I didn't have a chance to listen to everything.

But I don't think the text agrees well with the entire title of the report. I think it's fine regarding the Delta Science Program (DSP) and Delta Independent Science Board (DISB) and I think it's a very good idea to clarify the roles and responsibilities of each, but it really does not give an overview of Delta science beyond acknowledging "the myriad ways in which science is conducted." I actually like and largely agree with the (few) points you make about Delta science, but an overview, even an "initial" one, it is not.

Regarding one of the points you make about Delta Science: You talk about the need for "more scientific interchange" and mention the Delta Science Conference and the State of the Estuary Conference and that you want to support "the creation of additional innovative opportunities to bring scientists together." I'd like to bring to your attention that the IEP is ALL about bringing scientists and others together, science cooperation is at its core. That's why the IEP logo says "cooperative ecological investigations in the San Francisco Estuary since 1970." To my knowledge, the IEP is the only existing program in the Delta that is built on and around interagency (and broader) science cooperation and interchange and it has been doing this for a long time. I feel at least one sentence about the IEP should thus be included in your report.

Two examples of how the IEP is fostering scientific cooperation and interchange:

1. The IEP annual meeting aka "IEP workshop," see <http://www.water.ca.gov/iep/activities/workshop.cfm>. This is a conference-style workshop with a long tradition and consistent attendance (even in difficult budget times) by 200-300 scientists, stakeholders, and some policy makers. The IEP workshop is a more low-key affair than the larger conferences. This is very intentional: we want to encourage more informal discussions during and surrounding the workshop sessions and also participation by more junior scientists, see attached IEP workshop principles. The IEP workshop is also very much a venue to "challenge each other's assumptions and findings, find common ground, and work toward a stronger cohesion in the scientific community." More so, I believe, than the larger conferences which provide fewer opportunities for discussion and cooperative "work." The 2012 IEP annual meeting will take place April 18-20 at the Lake Natoma Inn in Folsom, CA. It will directly follow and partially overlap with the annual meeting of the California Water and Environmental Modeling Forum (CWEMF) which will take place at the same location April 16-18. Programs for both meetings are currently under development, including a joint program that will likely take

place on April 18 and is intended to foster interchange among scientists from both groups on topics of common interest.

2. The IEP's many technical teams known as "Project Work Teams" (PWTs), see <http://www.water.ca.gov/iep/docs/IEP-ORG.pdf> . The IEP PWTs are central to IEP science cooperation and interchange and many scientists take advantage of them. PWT meetings are generally open to the public and like the IEP workshop, most are fairly informal which makes them "non-threatening" to more junior scientists.

In addition to these opportunities to share, learn, and discuss science provided by the IEP, IEP scientists from different agencies also work together on monitoring surveys and on often complex field- and lab-based studies as well as analysis and synthesis efforts (e.g. with the National Center for Analysis and Synthesis in Santa Barbara) that commonly also involve academic and private partners. IEP agencies effectively share resources, including a fleet of research vessels, boat operators, and analytical labs. A previous effort to bring scientists from several IEP agencies together in a Bay-Delta science center to be located on the UC Davis campus was unfortunately not successful. It is my hope that we can revisit this concept in the future. On a more positive note, the IEP is now actively moving forward with planning a research station in Rio Vista which would be used primarily by five IEP agencies. These five agencies (DWR, DFG, USBR, USFWS, NOAA) just signed a Memorandum of Understanding that establishes a framework and organizational principles for the planning, development, ownership, and management of the proposed shared Rio Vista Estuarine Research Station (RVERS) in association with a new USFWS Fish Technology Center. These practical efforts all also foster "scientific interchange."

Finally, I'd also like to make two more general comments about the need for "more scientific interchange:"

Personally, I don't actually feel that we need many more opportunities for "in-person" interchange here in the Bay-Delta region, although housing many of us in a common facility (such as the science center mentioned above) where we could more easily interact with each other on a daily basis would be a very good thing. But I think the bigger problem might be that there is just too much to know and too little time to learn and talk about it all. I think what we might really need are more science-oriented web sites similar to "aquaforia" (<http://aquaforia.com/> ) that simply bring together all sorts of Bay-Delta science news at high-frequency (weekly or less) intervals and quickly and efficiently inform and perhaps even give some opportunity to discuss via comment threads. This could, for example, be modeled after [http://www.sciencedaily.com/news/top\\_news/top\\_environment/](http://www.sciencedaily.com/news/top_news/top_environment/). For our region, I think the DSP with its "fair, transparent and unbiased" reputation, its stated objective of communicating science, and its already existing bimonthly "Science News" might be an appropriate program to take this on, but this would of course require more staff and funding. Others might also be able to do it or help with it. This includes the Water Education Foundation (which currently sponsors aquaforia) and the California Water Quality Monitoring Council via its planned "Estuaries" web portal ([http://www.waterboards.ca.gov/mywaterquality/eco\\_health/](http://www.waterboards.ca.gov/mywaterquality/eco_health/) ). This portal is currently under development by a newly formed CA Estuary Monitoring Workgroup ([http://www.waterboards.ca.gov/mywaterquality/monitoring\\_council/estuary\\_workgroup/](http://www.waterboards.ca.gov/mywaterquality/monitoring_council/estuary_workgroup/) ) and will likely be built on the "Bay-Delta Live" platform (<http://www.baydeltalive.com/> ). Finally, the private consulting firm FISHBIO (<http://fishbio.com/>) recently started giving fish information updates for the Bay-Delta and watershed at roughly weekly intervals (see <http://archive.constantcontact.com/fs015/1101950876839/archive/1104451591126.html> for all reports to date). It would be interesting to see how effective this effort is.

While I think we may have enough opportunities for scientific interchange at a regional level, State agency scientists (and to some degree also Federal scientists) clearly do NOT have enough opportunities for scientific interchange at a national and international level. Current travel restrictions do not allow State agency scientists to participate in any national and international conferences and even prevent participation in some regional events. State scientists also do not have access to most electronic journal articles. This is a great hindrance to making the kind of profound scientific progress that is needed to find effective science-based solutions for the Delta. It would be great if the Delta Independent Science Board could help find a solution to this problem.

Thank you for considering my comments.

Greetings, Anke

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Please note: Views expressed in this e-mail are my own and do not necessarily represent the views of the Interagency Ecological Program or the Delta Stewardship Council.