

Stakeholder Meeting on Establishing a Brine Disposal Expert Panel for an Ocean Plan Amendment on Desalination Facilities and Brine Disposal

**July 5, 2011, 10:00 - 12:00 AM
at the CalEPA Building in Sacramento**

MEETING SUMMARY

Purpose of Meeting:

The staff of the State Water Resources Control Board (SWRCB), along with the Southern California Coastal Water Research Project (SCCWRP), held a stakeholder meeting on July 5, 2011 in Sacramento to organize a panel of experts to address scientific questions regarding the disposal of brine into the ocean.

These questions may include:

1. How can the effects of these discharges be minimized through proper disposal strategies?
2. What models should be applied in order to predict how these plumes will behave?
3. Can cumulative water quality effects associated with multiple plumes be evaluated with models?
4. What are appropriate monitoring strategies for these discharges?

The panel will be composed of approximately four scientists from different disciplines. The purpose of the meeting was to provide the interested public with the specific qualifications and potential individuals who may be asked to participate on the panel, and to get feedback from the public on this effort.

Notes:

The meeting was webcast for those who were unable to attend the meeting in person on the SWRCB's web site at <http://www.calepa.ca.gov/Broadcast>.

Dominic Gregorio, Chief of the Ocean Unit at the SWRCB, welcomed the stakeholders to the meeting and introduced the staff of the SWRCB and SCCWRP. The stakeholders also stated their names and affiliation. The meeting was also attended by Frances Spivy-Weber, member of the SWRCB, and Jonathan Bishop, Chief Deputy Director of the SWRCB.

Dominic Gregorio gave a presentation on the purpose of the meeting, the background for developing an Ocean Plan amendment on desalination facilities and brine disposal, and the next steps in the process of adopting an amendment. The presentation is posted on the SWRCB's website at http://www.waterboards.ca.gov/water_issues/programs/ocean/index.shtml.

Steve Bay, head of the Toxicology Department at SCCWRP, gave a presentation on SCCWRP, its role in the project, project objectives and schedule, and the panel composition and potential candidates.

Each presentation was followed by questions and comments and input (summarized below) from the stakeholders in attendance.

Ron Davis, representing CalDesal, proposed a list of three candidates for the Brine Disposal Expert Panel (Dan Cartamil, Susan Paulsen, and Scott Jenkins).

Richard Bell, representing the South Orange County Coastal Ocean Desalination Project (SOCOD), submitted a statement which described the SOCOD project, suggested questions for the Brine Disposal Expert Panel, and the desired expertise and specialization. He also offered assistance with data collection.

Stakeholder Questions and Comments:

On the Process:

1. More public input along the way would be beneficial before the Substitute Environmental Document is released and the first public workshop is held. [Because funding will run out in March 2012, the studies must be completed by then. This issue is furthermore a high-priority issue for the SWRCB, because of the plans for new desalination plants. However, there will be ample opportunity for public input along the way. The public is welcome to submit comment on the issue to SWRCB staff anytime.
2. Will there be scoping meeting on the SED? [There will be a public scoping meeting before a draft SED is released].
3. Have you considered site-specific objectives? There is much physical and biological variability from site to site. [There are misconceptions about narrative objectives, especially the mentioned objective of no more than 10% increase in salinity above background levels. Narrative objectives DO allow for site-specific considerations.]
4. Will the presentations be posted on-line? [Yes].
How do we get notified of future meetings? [Meeting notices will be sent out to the people on the State Water Board's email notification list. A list of people especially interested in the issue will also be developed and those people will be notified.

Notices will be posted on the State Water Board's and SCCWRP's web sites and cross-linked.]

5. More advance notice of future meetings would be appreciated and also the distribution of any meeting materials. [Comment noted. Staff will give more advance notice in the future.]

On the Salinity Toxicity Study:

1. Is the scope of work for the salinity toxicity study available for public comment? [No, the SWRCB is not taking public input on this study; the study is strictly scientific in nature and would not benefit from public input at this stage. The report of the study results will be available to the public to comment on as part of the references for the planned Ocean Plan Amendment.]
2. Will the scope of work for the salinity toxicity study be posted on the web? [No, the contract for the study has not yet been signed and finalized.]
3. What is the timeline for finishing the study? [The study is due to begin in September and will be done by March 2012.]
4. What salinity levels will be tested and what is the source water for the toxicity study? [Seawater from the Granite Canyon Marine Laboratory will be frozen to provide a brine with a salinity of approximately 100‰. This brine will be diluted with MPSSL seawater to provide test solutions of elevated salinity. Toxicity of these brine solutions will first be measured using range-finding tests. Results of the range-finding tests will then be used to design definitive toxicity tests. The results of the definitive tests will be used to calculate the no observed effect concentration (NOEC), lowest observed effect concentration (LOEC), and LC50 or EC50 (if possible) for each test protocol and endpoint.]
5. What are the species studied? [The species tested will include the species listed in the Ocean Plan in Table III-1.]
6. Will salinity toxicity information from other sources be accepted? [We very much welcome any information on this topic. Please send the information to Joanna Jensen at jjensen@waterboards.ca.gov and to Steve Bay at steveb@sccwrp.org]

On the Expert Review Panel on Entrainment and Impingement Impacts:

1. Will there be a similar public meeting to establish this group? [No, this group has already been formed to address entrainment and impingement impacts from power plants using once-through cooling].

2. Is the scope of work available for this study?
3. What is the schedule for this group? [This group must also complete its work by March 2012 when the funding for the work ends.]

On the Brine Disposal Expert Panel:

1. How much time will there be to comment on the preliminary candidates? [Within a week is best, but the comments must be received by July 19, 2011]
2. Who do we send the comments to? [Please submit your comments to Steve Bay at steveb@sccwrp.org and Dominic Gregorio at dgregorio@waterboards.ca.gov]
3. Will brine discharges from a desalination plant comingled with the discharge from a power plant using once-through cooling be considered by the panel? [Yes].
4. When will any potential data gaps identified by the studies be known to the public? [Data gaps are expected to be identified as a result of the panel's deliberations and described in its report, due March 2012].
5. We will be conducting studies in parallel. Who do we submit this information to? [Please submit your comments to Steve Bay at steveb@sccwrp.org and Dominic Gregorio at dgregorio@waterboards.ca.gov].
6. The Panel should look at the long-term fate of the brine discharge and its effect on the ecosystem.
7. Regarding ecosystem considerations, it is important to consider the substrates that the brine is discharged to. Sandy substrates cannot be presumed to be the best substrate for discharging brine.
8. Long-term biological monitoring to establish baseline conditions is needed before any discharge is allowed.
9. Will the study/panel look to verify that a discharge of no more than 10% increase in salinity above background levels is fine per the mentioned narrative objective? [The Granite Canyon study will look at toxicity levels and will influence any narrative objective. The Brine Disposal Expert Panel will look more at implementation, i.e. best ways to dispose of the brine in order to meet objectives.]
10. What technologies will be assessed? [Panel will develop list.]
11. Will you consider the lower pH levels that may be associated with brine discharges? I.e., how to monitor for and mitigate for lower pH levels? [pH impacts are expected to be considered by the panel].

12. Please consider site-specific needs for protection. Some species are more sensitive and others are endangered.
13. Four months seems like very little time to choose panel members and produce results. The overall schedule seems rushed and dollar-driven. [It's a high-priority issue that has lagged for a while].
14. Some of the proposed panel members seem to lack desalination experience. [The panel members will be selected to represent expertise in various disciplines relevant to brine disposal and effects. It is anticipated that each panel member will have prior experience with brine discharge issues relevant to their discipline].
15. It is good to have an expert with knowledge about ocean observing systems.
16. There are several "hotspots" along the California coast where desalination plants are proposed. The panel should have members familiar with these specific biological and physical systems.
17. The candidates for the ecosystem risk assessment position need expertise in desalination. A high level approach may be useful, but a site-specific and local approach is much needed. There's an advantage to have people with California expertise.
18. We appreciate that SCCWRP is leading this effort. We also appreciate the opportunity for public input.