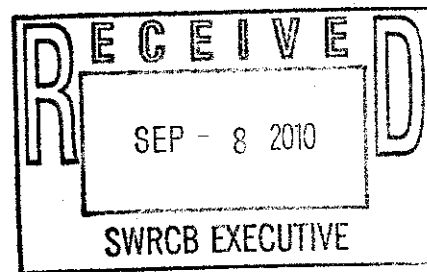


212 Locust Street, Santa Cruz, CA 95060 • (831) 420-5200 • Fax (831) 420-5201 • www.cityofsantacruz.com

September 8, 2010
State Water Resources Control Board (SWRCB)
PO Box 100
Sacramento, CA 95812-0100



Comment Letter – California Ocean Plan Scoping Document

Dear Board

Thank you for the opportunity to comment on the proposed scoping document to the California Ocean Plan (ocean plan). As one of the forty members of CalDesal and a General Manager of a public agency that has done extensive work on the subject in our desalination studies, please accept the following comments on **Item 10 Desalination Facilities and Brine**.

The City of Santa Cruz is in dire need for new water supplies for not only drought protection, but also over-appropriated rivers and coastal streams that has led the National Marine Fisheries Service to offer its strong support of our desalination planning. On a state-wide basis, unknown impacts of climate change, judicial action restricting delta flows, and growth throughout the state, all lead to the need for seawater desalination as part of a secure future water supply. Desalination is a recognized part of the California's future water portfolio as presented in the California Water Plan and the plans of many local water agencies. Please consider our argument for **Alternative #1 No Action**. In very general terms, this course of action avoids any artificial standard, such as percent of natural background salinity, from impeding the need for desalination where feasible and appropriate to meet the needs of our current and future generations. In consultation with our Scientific Review Panels that include representatives of State agencies, **Alternative #1 No Action** is recommended for the following reasons:

The adoption of a Brine Water Quality Objective by the SWRCB is not necessary as all brine discharges require National Pollutant Discharge Elimination System (NPDES) permits, and these permits (and the conditions they contain) ensure that the ocean environment is not impacted by these discharges.

The identified concern in the scoping document is that there are no ocean plan water quality objectives that apply specifically to brine waste discharges from desalination plants. In fact, Brine water quality objectives do already exist as all brine discharges require NPDES permits. In addition, the ocean plan currently has adequate protection through existing standards:

- Water Quality objectives are set for bacteriological, physical, chemical and biological characteristics of receiving water for discharge

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- Objectives include concentrations of metals, and or the chemical constituents for a discharge for the protection of all beneficial uses including habitat for marine species and well as human health
- Standards applying to the naturally occurring chemical constituents found in seawater that are concentrated as part of the desalination process and discharged back into the ocean as brine

The requirements for NPDES and existing water quality objectives require protection of the ocean environment by these discharges through that existing process.

A narrative for brine discharges will impact many types of discharges, including water recycling concentrate and brine lines as well as desalination concentrate from ocean desalination and groundwater plants. Please be mindful that all of these discharges are being successfully regulated today and that any additional regulation is not only redundant, but will likely have the consequence of impacting/impeding these facilities also. As more and more water is recycled out of waste water treatment plants the remaining discharges become more concentrated and saline. Existing brine lines and additional brine lines are built to combat the issues of salt loading in our basins. Brine lines that are subject to the NPDES process are, and will continue to be, viable solutions to basin salinity problems as already regulated activities.

Regional Water Quality Control Boards (Regional Boards) are successfully permitting brine discharges today and an additional layer of regulations is unnecessary to protect the marine environment. As noted there is adequate existing regulation for Regional Boards to protect the oceans from saline discharges. The Regional Boards have successfully permitted numerous seawater desalination, groundwater desalination, recycled water concentrate and brine line projects. Scientific evidence dictates regional regulation as the technical matters regarding brine discharges are very site-specific and lend themselves consideration of the particular characteristics of each application.

Science does not exist today to set a percent of background salinity narrative. It is not appropriate to have a statewide percent of natural background as suggested in Alternative #2. This attempt to find a simple state-wide formula to fit all coastal environments suffers from three major problems: 1) the practical difficulties of defining what natural background is; 2) the significant disparity in natural background levels found throughout the state; and 3) the enormous range from place to place in the natural variability of those background levels. The acute and chronic toxicity standards in the ocean plan have been successfully applied to permits for brine discharge by the Regional Boards. As previously mentioned, they are very site-specific and species-specific. Conditions such as blending and time of dispersal of brine plume all play a part in regional decisions applicable to the unique conditions of a regions ocean environments. Due to the variability of coastal currents, brine plumes vary in size and trajectory over time and may influence multiple types of habitat, each of which may have different tolerances to salinity variation. The variability of currents also influences the amount of time that free floating organisms are exposed to brine plumes.

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There is no need for an artificial percent of background salinity narrative.

In some cases this would be overprotective, in some under-protective. A blanket condition of a certain percent of natural conditions is not good science. Regional Boards are doing a good job in applying the ocean plan. Staff has accurately described why Alternative #3 is not workable. The cited study on sea urchins itself suggested more study is needed. In addition, test protocols have changed since that study was conducted and desalination technology has advanced, so the study results most likely are not representative of current conditions. The water industry has already stepped forward to initiate additional site-specific research on hyper salinity effects and will continue to do so, as are new sites are proposed. Good public policy would suggest that more data and experience is necessary before a new amendment is added to the ocean plan for brine.

In summary, the ocean plan currently offers good methods of protection. It allows for site specific permits. The NPDES protects the marine species from acute and chronic toxicity and no more needs to be done at this time. I urge you to adopt **Alternative #1 No Action**. If the Board continues to opine that the ocean plan should include some mention of disposal, a simple statement supporting the continued regulation through the Regional Boards and the existing NPDES process is sufficient.

Sincerely,



Bill Kocher, Director
City of Santa Cruz Water Department,
Member, CalDesal

cc: ACWA
CalDesal