

Special Committee on Desalination and Recycling

Item 3c

Subject: Oral Report on the State Water Resources Control Board's
California Ocean Plan – Triennial Review

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Item 3c
April 9, 2012

What is the California Ocean Plan?

- Adopted in 1972
 - Implementation of Porter-Cologne and Federal Clean Water Act
- Water quality plan for ocean waters
 - Identifies protected uses
 - Establishes water quality objectives
 - Sets discharge limitations
- Separate plan for enclosed bays and estuaries
- Updated every three years

Discharge Examples



Wastewater



Storm Water



Industrial Discharges

Desalination Scheduled for 2012 Update

- Originally slated for 2009 update
 - Once-through cooling regulations were a priority
 - Desalination was not a focus due to lack of resources
- “Very High Priority” for 2012 update

Seawater Desalination Intakes and Outfalls

Pacific Ocean

**Intake
(10 MGD)**

- Impingement
- Entrainment

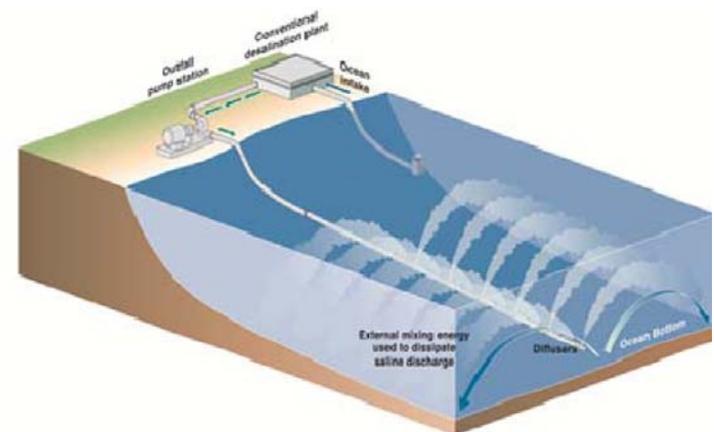


**Desalination
Plant
5 MGD**

**To Users
(5 MGD)**

**Outfall
(5 MGD)**

- Brine ~ 2 X ocean salinity levels
- Salinity impacts



Preliminary Recommendations:

Narrative water quality objective	Salinity not to exceed 10% of natural background
Implementation	Compliance at edge of Zone of Initial Dilution
Intakes	Prevent or minimize impingement and entrainment
Enclosed Bays	Prohibit intakes and brine disposal from impaired enclosed bays

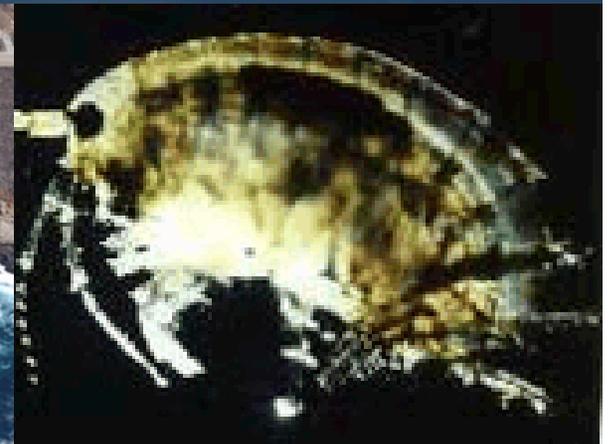
Study 1: Brine Discharge Expert Panel

- Managed by Southern California Coastal Water Research Project (SCCWRP)
- Determine appropriate models and brine disposal technologies
- Expert panel selected with stakeholder input
- Dec. 8-9 workshop in Costa Mesa
 - Stakeholder presentations
- Draft report expected in April



Study 2: Salinity Toxicity Study

- Marine Pollution Studies Laboratories
- Goal: define salinity tolerances of reference marine species
- Member agency study data also submitted
- Draft report expected in April



Study 3: Intake Expert Panel

- Moss Landing Marine Laboratory
 - Experts selected with stakeholder input
 - Desalination and once-through cooling
- Draft report released in February
- Proposed mitigation fee: \$2.57 per MG
 - Or develop an equivalent mitigation project
 - Designed to cover all intake impacts
 - Monitoring costs not included
- Sub-surface intakes: protective but not suitable for large projects
- Screened intakes: effective on impingement

MWD and CalDesal Actions

- Testimony at SWRCB meetings and workshops
- CalDesal
 - Successfully advocated for open process
 - Effectively coordinating water industry
- Message points on Ocean Plan
 - Promote sound science
 - Consider water agency research
 - Allow for site-specific conditions
 - Differentiate seawater desalination from power plant once-through cooling

Timeline

- Scoping workshop
 - What should be in the CEQA Document?
- April: studies complete
- May: SWRCB board-level workshop
 - Specific Ocean Plan regulations
- July: public hearing
- January 2013 Adoption hearing planned
- Federal EPA approval required

Next Steps

- Participate in workshops and hearings
- Coordinate with member agencies and CalDesal
- Provide additional updates to Committee

Questions?