



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
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Tom Howard, Executive Director
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, California 95814

Mr. Howard:

NOAA's National Marine Fisheries Service (NMFS) thanks you for the opportunity to comment on the State of California's Proposed Amendments to the Water Quality Control Plan for Ocean Waters of California Addressing Desalination Facility Intake, Brine Discharges, and the Incorporation of Other Nonsubstantive Changes (Desal Policy). NMFS is responsible for the stewardship of the Nation's living marine resources through science based conservation and management, and the promotion of healthy ecosystems. Much of our work involves conserving, protecting, and recovering species listed as threatened or endangered pursuant to the Federal Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.). NMFS also works to protect essential fish habitat (EFH) designated under the Magnuson-Stevens Fishery Conservation and Management Act (MSA). For the purposes of the MSA, EFH means "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity", and includes the associated physical, chemical, and biological properties that are used by fish (50 CFR 600.10). NMFS considers the State Water Resources Control Board (SWRCB) to be an invaluable partner in the successful implementation of these two statutes.

NMFS has been following this SWRCB process for many years and believes Alternative 1 in the proposed Desal Policy best avoids and minimizes impacts to NMFS trust resources. Alternative 1, which requires the use of subsurface intakes for water supply, would result in reduced impacts to NMFS trust resources from facility operations due to the elimination of entrainment and impingement impacts. There may be increased construction impacts due to subsurface intake development, compared with installation of wedgewire screens or alternative surface water intake structures allowed under Alternative 2. These potential construction impacts may be offset through the required mitigation under Alternative 1. Alternative 1 provides a greater assurance of minimized long term impacts to NMFS trust resources. NMFS anticipates commenting on these facilities individually as they go through permitting processes.

Alternative 2 may adequately address impacts to NMFS trust resources if some minor adjustments were incorporated into this alternative. Specifically, NMFS recommends 0.33 fps as a maximum through-screen velocity in order to minimize potential entrainment and impingement impacts. Currently, Alternative 2 allows for the use of screened surface water intakes operated at



intake velocities not to exceed 0.5 feet per second (fps) and with slot opening sizes between 0.5 and 1 mm. Alternative, but equally protective, intake methods may be approved following site specific evaluations. Although NMFS does not have a through-screen velocity guidance criteria for non-salmonids in marine waters, it is important to note that the approach velocity criteria (synonymous with through-screen velocity as measured perpendicular to the screen face) put forward by NMFS for lakes, reservoirs and tidal areas for fingerling sized (<60mm) salmonids is 0.33 fps. The U.S. Fish and Wildlife Service has a criteria for Delta smelt of 0.2 fps. These criteria indicate that the proposed through-screen velocity of 0.5 fps may not be fully protective of weaker swimming species and life stages.

NMFS reviewed the City of Santa Cruz and Soquel Creek Water District's Draft Environmental Impact Report for the Proposed Regional Seawater Desalination Project in July 2013. This project proposed using a wedgewire screen with a through-screen velocity of 0.33 fps which shows that more protective screening technologies are available at a commercial scale. This through-screen velocity was also low enough that turbulence in the nearshore environment where the intake was deployed eliminated the need for an air burst or other system to clean material from the surface of the screen. Therefore, NMFS recommends 0.33 fps as a maximum through-screen velocity as part of Alternative 2 in order to minimize potential entrainment and impingement impacts.

The Desal Policy contains entrainment monitoring requirements in order to determine potential impacts from a surface water intake system and to inform the development of mitigation requirements. During review NMFS noted that the monitoring requirements under section III.L.2.d.(1).(c).iii did not include the requirement to use a 200 micron mesh or smaller net to provide a broader characterization of impacted organisms as is required under section III.L.2.e.(1).(a). NMFS requests that this 200 micron mesh net requirement be applied uniformly throughout the Desal policy where monitoring is required.

NMFS notes that the SWRCB's expert panel analyzed data and pilot projects in its March 14, 2012 Expert Review Panel on Intakes: Final Report, as referenced repeatedly in the draft Desal Policy. The data compiled in that report (See appendix 3, Table 1 for example) clearly shows that a slot opening size no greater than 0.5mm is necessary to minimize the entrainment of fish eggs and larvae of many different species including several important commercial species managed under the MSA such as northern anchovy, Dover sole, English sole, and sanddabs. Species of recreational importance that would experience a greater impact from a 1.0mm slot opening include California halibut, queenfish, California sheephead and various croakers and turbot. In addition, a slot size opening of 0.5mm would not prevent the entrainment of abalone larvae, which are typically smaller than this during their pelagic phases. However, careful siting of an intake may be able to eliminate or minimize impacts to ESA listed abalone species on an individual project.

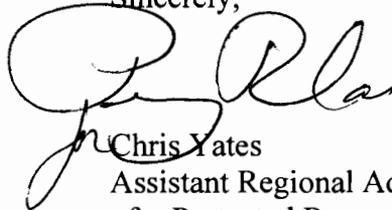
NMFS supports the requirement under both Alternative 1 and 2 to determine mitigation requirements to offset remaining impacts by using the Area Production Foregone methodology. NMFS requests the opportunity to review and give input to these draft mitigation proposals so that we may highlight opportunities that may be of particular importance to the management of the Nation's living marine resources.

In addition, NMFS fully supports the following aspects of both Alternatives 1 and 2:

- The Monitoring and Reporting Requirements
- The restriction against placing a desalination facility within a Marine Protected Area or a State Water Quality Protection Area, or where a facility may impact these areas.
- The requirement that salinity increases be restricted to less than 2 parts per thousand over background conditions at a distance of greater than 100 meters from the discharge point.

In closing, NMFS appreciates the opportunity to comment on this important policy. As desalinated water becomes an increasingly important component of California's water supply, it is important that its potential impacts be minimized to the maximum extent practicable and any remaining impacts be fully mitigated. NMFS believes Alternative 1 of the Desal Policy should achieve this standard and Alternative 2 may also accomplish this with the incorporation of our recommended changes. We look forward to working with the SWRCB and the other State agencies in reviewing these facilities as they are proposed. If you have any questions regarding this letter please contact Bryant Chesney at (562) 980-4037 or Bryant.Chesney@noaa.gov or Joe Dillon at (707) 575-6093 or Joseph.J.Dillon@noaa.gov.

Sincerely,



Chris Yates
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for Protected Resources Division

cc: Irma Lagomarsino, NMFS, Arcata
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