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Thursday, April 9, 2015

Jeanine Townsend, Clerk to the Board  
State Water Resources Control Board  
1001 I Street, 24th Floor  
Sacramento, CA 95814



### **Re: Desalination Amendment and Staff Report**

Dear Ms. Townsend:

Heal the Ocean (HTO), a Santa Barbara based citizens' action group focused on stopping sources of ocean pollution, appreciates this opportunity to offer additional input on the State Water Resources Control Board's (State Water Board) proposed *Final Amendment to the Water Quality Control Plan for the Ocean Waters of California (Ocean Plan) addressing Desalination Facility Intakes, Brine Discharges, and the Incorporation of other Nonsubstantive Changes* (Desalination Amendment). We work to facilitate funding, provide institutional support, and advocate publicly for wastewater treatment plant upgrades for recycled water. We are in the midst of working with sanitary districts in South Santa Barbara County in a groundbreaking study to determine the feasibility of fully allocating local wastewater supplies in potable reuse projects via groundwater recharge and other distribution methods if recharge is not possible.

Our previous letter outlined some of our concerns related to how the Desalination Amendment may affect the development of future recycled water supplies in the state. We are specifically concerned that the Desalination Amendment's prioritization of comingling of wastewater supplies with brine discharge will limit the expansion of future recycled water supplies. We appreciate staff's thoughtful response to our previous letter and the associated edits included in Chapter 11 of the Draft Staff Report, especially the sentence stating that "WWTPs, water recycling facilities, and desalination facilities will work together to identify the best use of the treated wastewater."<sup>1</sup>

However, in contrast to the staff report's assertion that wastewater for brine dilution will not "promote or inhibit water recycling efforts," HTO maintains that comingling wastewater will inhibit the expansion of future recycled water supplies.

<sup>1</sup> State Water Resources Control Board. *Draft Staff Report: Proposed Amendments to the Water Quality Control Plan for Ocean Waters of California Addressing Desalination Facility Intakes, Brine Discharges, and the Incorporation of other Nonsubstantive Changes*. March 20, 2015: p. 144.

The Desalination Amendment needs to go further in securing wastewater as the source for more environmentally favorable recycled water projects for the following reasons:

First, the second guiding principle for developing environmentally and economically acceptable desalination projects from the "California Desalination Planning Handbook" states that "to the extent possible, conservation and recycled water use measures should be maximized before desalination or other new sources of water are pursued."<sup>2</sup> We see no reason why the Desalination Amendment should not better reflect the State's own planning guidelines for desalination projects. The State should undertake greater evaluation of recycled water supplies prior to the approval of desalination facilities across the state and ensure that wastewater supplies are not unnecessarily locked up for the purposes of brine dilution.

Second, as we stated in our August 19 letter, the State's recycled water goals aim for 1.5 million AFY of production by 2020, and approximately 2.5 million AFY by 2030. HTO's own research has found that coastal cities and wastewater districts discharged approximately 1.5 million AFY in 2005.<sup>3</sup> These ocean discharges represents a significant amount of the 2020 and 2030 goals, even when considering the approximate 670,000 AFY of recycled water produced statewide in 2009 and the inevitable decreases in overall wastewater supplies due to water conservation with the drought. Allocating an increasing quantity of wastewater supplies for comingling with wastewater could increasingly jeopardize the State's recycled water goals.

Finally, plans for recycled water and desalination should be evaluated on an even playing field but comingling of wastewater threatens to tip the balance against recycled water.

As an example, imagine two communities: Community A and Community B. Community A has not built a desalination facility and is not comingling wastewater supplies but, instead, is discharging wastewater to the Pacific. They are free to consider their wastewater as an uninhibited source of water for a potential recycled water project. In Community A, the marginal cost of that recycled water project will only include conventional recycled water components like treatment trains and distribution systems. On the other hand, Community B has an existing desalination facility and is comingling wastewater for brine discharge. Prompted by the need for greater supplies, Community B is now considering a recycled water facility and must free up wastewater supplies currently used for comingling by its desalination facility. In contrast to Community A's recycled water facility, which only had to budget for conventional recycled water components, Community B's recycled water facility must also budget for the cost of installing multiport diffusers that will ensure adequate brine disposal for its existing desalination facility. In other words, even if the two recycled water facilities are identical in all other respects, the marginal cost of Community B's recycled water facility is greater than that of Community A because Community B's recycled water facility must incur the cost of installing multiport diffusers at the desalination facility to comply with the State's Desalination Amendment.

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<sup>2</sup> Department of Water Resources. *California Desalination Planning Handbook*. February 2008: p. 28. <[http://www.water.ca.gov/desalination/pud\\_pdf/Desal\\_Handbook.pdf](http://www.water.ca.gov/desalination/pud_pdf/Desal_Handbook.pdf)>.

<sup>3</sup> Heal the Ocean. *California Ocean Wastewater Discharge Report and Inventory*. March 2010: p. 5. <[http://healtheocean.org/images/ugc/uploads/press/HTO\\_COWDI\\_1.pdf](http://healtheocean.org/images/ugc/uploads/press/HTO_COWDI_1.pdf)>.

While it is true that the recycled water projects in either of these communities may require multiport diffusers to adequately dispose of recycled water related brine, the recycled water project in Community B would still incur greater costs from installing a multiport diffuser than Community A since it would need to provide adequate additional capacity to adequately dispose of the brine from Community B's desalination facility.

We believe the scenario described for Community B is likely to occur in at least some instances across the state. In cases where this does occur and desalination is prioritized first, future consideration of recycled water will be at a net disadvantage due to the costs of installing multiport diffusers. Ultimately, those costs may be manageable and may be outweighed by the need for recycled water, but at a time when the state is pushing to encourage recycled water production to the greatest extent possible, the Desalination Amendment tips the scales in the wrong direction. Simply put, desalination projects should not be permitted to utilize wastewater without taking into consideration the effect of comingling on future recycled water supplies.

In light of these concerns, **Heal the Ocean recommends that the Desalination Amendment include a provision for all desalination applicants to fully evaluate all potential recycled water supplies in their service areas prior to NPDES permit approval.**

The Central Coast Regional Water Quality Control Board (Regional Water Board) took this exact approach when considering approval of the City of Santa Barbara's (City) proposed reactivation of the Charles E. Meyer Desalination Facility. As a part of a conditional use permit (which, it should be noted, will not stop the plant from moving forward in the interim), the City is required to report back to the Regional Water Board with a work plan for evaluating potable reuse options within the City.

We believe that this is a reasonable, balanced approach for ensuring that recycled water is adequately prioritized compared to desalination. This approach would not stop desalination projects from moving forward, but it would give communities and decision makers greater information regarding the extent of wastewater supplies that can be feasibly converted to recycled water relative to those wastewater supplies needed for comingling in a desalination project. Under this approach more informed long-term planning can take place and adequate contingencies, like multiport diffusers, could be included in desalination project plans.

### **Non-Substantive Comments**

Page 144: In the sentence that reads "...either promote or inhibit water recycling efforts," change "either" to "neither."

### **Conclusion**

Heal the Ocean understands that comingling of wastewater supplies is being prioritized by the State Water Board because it is an environmentally superior method for brine disposal. However, given the severity of the drought, and the environmental benefits of recycled water, we believe requiring desalination applicants to fully evaluate potential recycled water supplies will ensure that recycled water projects are appropriately prioritized and

kept on an even playing field with desalination projects that plan to comingle brine waste with wastewater supplies.

Ultimately, if implemented, this recommendation will help local water purveyors better plan for future recycled water supplies and better comply with the staff report's recommendation that "WWTPs, water recycling facilities, and desalination facilities [...] work together to identify the best use of the treated wastewater."<sup>4</sup>

Please do not hesitate to contact us if you have any questions.

Sincerely,



Hillary Hauser, Executive Director



James O. Hawkins, Policy Director

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<sup>4</sup> State Water Resources Control Board. *Draft Staff Report: Proposed Amendments to the Water Quality Control Plan for Ocean Waters of California Addressing Desalination Facility Intakes, Brine Discharges, and the Incorporation of other Nonsubstantive Changes*. March 20, 2015: p. 144.